December 1992

Teacher Recruitment Practices and Teacher Supply and Demand Conditions in Selected School Districts in Six Southeastern States

Brenda J. G'fellers
East Tennessee State University

Order Number 9308911

Teacher recruitment practices and teacher supply and demand conditions in selected school districts in six southeastern states

G'Fellers, Brenda Jane Marshall, Ed.D.

East Tennessee State University, 1992

U·M·I
300 N. Zeeb Rd.
Ann Arbor, MI 48106

Teacher Recruitment Practices and Teacher Supply and Demand Conditions in Selected School Districts in Six Southeastern States

---

A Dissertation

Presented to

the Faculty of the Department of

Educational Leadership and Policy Analysis

East Tennessee State University

In Partial Fulfillment

of the Requirements for the Degree

Doctor of Education

---

by

Brenda Jane Marshall G'Fellers

December 1992

APPROVAL

This is to certify that the Graduate Committee of

BRENDA JANE MARSHALL G'FELLERS

met on the

5th day of August, 1992.

The committee read and examined her dissertation, supervised her defense of it in an oral examination, and decided to recommend that her study be submitted to the Graduate Council and the Associate Vice-President for Research and Dean of the Graduate School, in partial fulfillment of the requirements for the degree of Doctor of Education.

Chair, Graduate Committee

W. Hal Knight

Lloyd H. Edwards

Russell F. West

Signed on behalf of the Graduate Council

Associate Vice-President for Research and Dean of the Graduate School

ABSTRACT

TEACHER RECRUITMENT PRACTICES AND TEACHER SUPPLY AND DEMAND CONDITIONS IN SELECTED SCHOOL DISTRICTS IN SIX SOUTHEASTERN STATES

by

Brenda Jane Marshall G'Fellers

The purposes of this study were to determine the adequacy of teacher supply and to identify teacher recruitment practices used in large and small school districts in six southeastern states and to elicit from respondents ratings of the importance and effectiveness of the various teacher recruitment practices.

A population of 362 small and large school districts in 6 states, Florida, Georgia, North Carolina, South Carolina, Tennessee, and Virginia, was surveyed in the late summer and fall of 1991. The return rate was 50.27%. The survey instrument had been developed by Roger L. Nall and was revised by the researcher. A pilot study and review by a panel of experts were conducted.

Thirty-five null hypotheses were formulated. Seventeen were retained and 11 were rejected. Seven were complex and were evaluated item by item. Statistical tests used included the t-test for independent means, the chi-square, and the Komolgorov-Smirnov two sample test. Data were analyzed in terms of relationships to three dichotomous variables: district size, small or large; location, rural or urban; and district experience with teacher supply and demand, teacher shortage or no shortage.

Districts responding to the survey were using a variety of teacher recruitment practices. Significant differences were found between districts when grouped by the three dichotomous variables in the use of specific teacher recruitment practices and the number of recruitment practices used. Large districts and urban districts made greater use of recruitment practices that covered a broader geographic area and of long-range solutions to shortage conditions. Small districts and rural districts made greater use of internal posting of vacancies and general reliance upon in-state contacts. A total of 53 recruitment practices in use in 2 or more districts were identified. A list of 36 recruitment practices regarded as most effective was developed.

Districts responding to the survey were experiencing teacher shortage conditions, with 51.9% of urban and 50% of rural districts and 47.2% of small and 56.8% of large districts citing teacher shortage conditions. Specific subject or endorsement areas in which teacher shortage conditions existed were identified.

DEDICATION

With love and gratitude for the continued support and encouragement afforded me through these many years of study, this work is dedicated to my husband, Gary G'Fellers, and to our daughters, Jeannie G. Walker and Anne G'Fellers.

The work is further dedicated in memory of three family members. These beloved individuals were: my aunt, Dorothy Emmalee Hicks King, who provided encouragement by expressing interest and pride in my work; my brother, Billy David Marshall; and my grandmother, Cora Lee Bawgus Marshall, whose loving concern was often expressed.

Finally, the work is dedicated to my mother, Georgia Ruth Hicks Marshall. Without her continued love, support, faith, and encouragement, the work might never have been undertaken. My mother, firmly rooted in reality, has always simultaneously dwelt in the land of dreams and possibilities.

To each of you, Gary, Jeannie, Anne, Dorothy, Billy, Mammaw, and Mama, this work is dedicated. I thank you.

ACKNOWLEDGMENTS

A number of individuals have contributed to the successful completion of this work. Chief among these has been my faculty advisor, Dr. Charles Burkett. His unfailing support has been instrumental and is much appreciated.

The time, energy, and support given to this project by other members of my faculty advisory committee are appreciated. Dr. Floyd Edwards, Dr. W. Hal Knight, and Dr. Russell West have generously given their expertise to this work. The assistance provided by members of my faculty advisory committee has been invaluable.

The contributions of my friend and neighbor, Raymonde Cox, who typed the work, are appreciated. Raymonde went far beyond any formal requirements in her efforts to see the work successfully completed. Her willing and ready attitude and calm acceptance of the many changes along the way were beneficial.

The value of my family's contributions to this effort cannot be overstated. Their tolerance of my preoccupation, absence from home to study, and the assistance rendered in so many ways, including patient listening, performance of household chores, sharing knowledge of computer functions, loving support and encouragement, and simply being there made the successful completion of this work possible.

Several friends provided encouragement and assistance. Dr. Carolyn Brown provided assistance with the SPSS-PC+

package. The continuing support and encouragement of Wanda Myers is appreciated. The friendly encouragement shown by Dr. Ann Little, Dr. JoAn Trentham, and Dr. Ruby Davis was important. The support of other friends and co-workers in the Johnson City Schools and especially the encouragement of my immediate supervisor, Beverly Campbell, have been beneficial and are appreciated.

CONTENTS

LIST OF TABLES

CHAPTER 1

Introduction

The recruitment of quality teachers is an on-going task demanding the energies of administrators, a task which requires more administrative attention during periods of teacher shortage. Administrators must be informed of the most current and productive recruitment techniques in order to spend teacher recruitment time and dollars wisely. How can administrators attract quality applicants during a possible teacher shortage?

Does a teacher shortage exist? Even this apparently simple question has evoked contradictory responses. This variety of responses was explained in a study conducted by the Maryland State Department of Education (1986) which reported that "there does not appear to be a generally accepted method of conducting teacher supply and demand studies or for reporting their results. Each agency adopts a format and methodology to suit its purposes and needs" (p. 30).

Although educational and demographic authorities sometimes disagree about the existence of a teacher shortage, whether real or potential, the importance of teacher recruitment was noted by all. Jensen (1987) wrote:

> Over 1.3 million teachers will be hired in the United States between 1986 and 1992. These openings present a

> window of opportunity for school districts, according to Edwin M. Bridges. Such a vast influx of new teachers offers districts a chance to rapidly improve educational programs (p. 14).

Castetter (1986) concurred, stating that "the foremost and perhaps most challenging problem of any organization is to identify from its pool of human resources those individuals who fit position requirements or who can be developed to fit them" (p. 184). Recruitment activities should be designed to attract high quality candidates into a district's talent pool and to enable a district to chose an outstanding candidate from a group of talented applicants. A quality recruitment program should enrich a school district.

Teacher recruitment is crucial to the development of a quality educational program. This study was undertaken to investigate several concerns related to teacher recruitment. To what extent are large and small school districts in six southeastern states experiencing a teacher shortage? Is a shortage of teachers affecting teacher recruitment activities? What teacher recruitment activities are utilized in large and small school districts in the selected states? Which teacher recruitment practices are regarded as most effective? Knowledge of current teacher recruitment practices in large and small school districts in six southeastern states could be used by school districts to plan, evaluate, and revise teacher recruitment programs.

The Problem

The Statement of the Problem

Are school systems experiencing teacher shortages? What are school systems doing to recruit teachers?

The Significance of the Study

A teacher shortage may exist. Some are contending a shortage exists and can be expected to increase in severity (Darling-Hammond, 1984; Bowen, 1985; Grissmer & Kirby, 1987; Beck, 1988; Tifft, 1989). Are school systems experiencing teacher supply problems? What are school systems doing to attract teachers? If a shortage exists, school systems may or may not be addressing the problem of attracting an adequate supply of quality applicants.

Recruiting competent teachers is a major task of school administrators. Under conditions of variable teacher supply, the task has become more formidable. Renner (1985) wrote:

> Recruiting teachers has been one of the most poorly practiced administrative tasks. In spite of the fact that personnel-related expenses make up some 75% of the typical school budget, the administrative time and energy spent on recruiting teachers is sadly disproportionate to the ultimate value of the task. (p. 36)

The identification of teacher recruitment practices currently in use in large and small school systems in the

southeast should assist school personnel officers and other administrators in the planning of recruitment programs. The study was designed not only to identify recruitment practices, but also to elicit comments from respondents about the effectiveness of various recruitment activities.

Teacher recruitment has traditionally been afforded attention during periods of teacher shortage and ignored at other times. The problem is significant. If an adequate supply of teachers exists, perhaps school systems should continue current recruitment practices. If the supply is inadequate, schools should evaluate and alter recruitment practices.

The Purpose of the Study

The purposes of this study were to determine the adequacy of teacher supply and to identify teacher recruitment practices used in large and small school districts in six southeastern states and to elicit from respondents ratings of the importance effectiveness of the various teacher recruitment practices. Recommendations for teacher recruitment programs were based upon an analysis of the data provided by the respondents.

Limitations

The following limitations applied to this study:

1. Data limited to that collected by survey instrument.

2. Study limited to selected large and small school systems in six southeastern states, Florida, Georgia, North Carolina, South Carolina, Tennessee, and Virginia. These six states employ a number of graduates of East Tennessee State University teacher education programs.

Assumptions

For the purpose of this study, the following assumptions were made.

1. The listing of school systems within each state, as shown in Patterson's American Education (Moody, 1989), included all large and small public school districts.
2. Validation of instrument (field study involving medium sized school districts in Tennessee, conducted in June, 1991, and review of instrument by a panel of experts in the field of teacher recruitment) and revisions resulting from that study were adequate.

Definitions of Terms

Alternative certification--certification issued through avenues designed to allow those not meeting traditional certification requirements to meet alternative requirements and thus be allowed to teach. The term non-traditional certification has also been used.

"Programs designed to bring non-education majors into teaching" (Olson, 1987, p.5).

Application ratio--the number of applicants per vacancy (Castetter, 1986).

Emergency certification--certification issued on an emergency basis to an individual not meeting all standard requirements for the issuance of a teaching certificate. "Emergency certificates, ... in some cases, allow people without a college degree to teach a class when certified teachers cannot be found" (Gursky, 1989, p. 45).

External teacher recruitment practices--teacher recruitment practices designed to attract applications from outside the school district.

Financial incentive teacher recruitment practices--recruitment techniques which offer a monetary aspect, including salary increases or bonuses, or funds to offset costs that might otherwise be an economic deterrent to recruitment, for example, moving costs.

Internal teacher recruitment practices--those recruitment activities whose impact is felt within the district. These include planning activities or activities designed to inform current employees and enlist their assistance.

Large school system/district--public school system with a K-12 average daily attendance of 10,000 or more

students. According to the Digest of Education Statistics: 1987 (Snyder, 1987), such districts comprised 3.9% of all public school districts in the United States and enrolled 43.2% of K-12 public schools students.

Recruitment--"those activities in personnel administration designed to make available the numbers and quality of personnel needed to carry on the work of the school system" (Castetter, 1986, p. 184).

Recruitment practices--the activities a school system uses in order to attract applicants.

Rural school district--a school district lying outside the boundaries of a Metropolitan Statistical Area.

Small school district--a public school system with a K-12 average daily attendance of 2,500 or fewer students. According to the Digest of Education Statistics: 1987 (Snyder, 1987) such districts comprised 52.8% of all public school districts in the United States and enrolled 7.5% of K-12 students in the nation.

Teacher--an individual holding teaching certification and employed by a school or school system to teach.

Teacher shortage--when the number of qualified persons willing to accept employment as teachers is less than the number needed to fill vacancies, a teacher shortage exists.

Urban school district--a school district located within a Metropolitan Statistical Area (MSA).

Questions

Several questions were important in the development of this study. Does a teacher shortage exist? How are large and small school districts in six southeastern states affected by teacher supply and demand? Do teacher recruitment practices vary due to changing patterns of teacher supply? Which teacher recruitment practices are widely used in the southeast and considered effective? What is the ratio of applications per vacancy and does this vary among the districts?

Hypotheses

1. There will be no significant difference between large and small school districts in the per pupil expenditure for teacher recruitment.
2. There will be no significant difference between large and small school districts in the total number of financial incentive teacher recruitment practices used.
3. There will be no significant difference between large and small school districts in the use of specific financial incentive recruitment practices.
4. There will be no significant difference between large and small school districts in the number of internal teacher recruitment practices used.

5. There will be no significant difference between large and small school districts in the use of specific internal teacher recruitment practices.
6. There will be no significant difference between large and small school districts in the number of external teacher recruitment practices used.
7. There will be no significant difference between large and small school districts in the use of specific external teacher recruitment practices.
8. There will be no significant difference between large and small school districts in reported subject areas of teacher shortage.
9. There will be no significant difference between large and small school districts in the reported importance of specific financial incentive teacher recruitment practices.
10. There will be no significant difference between large and small school districts in the reported importance of specific internal teacher recruitment practices.
11. There will be no significant difference between large and small school districts in the reported importance of specific external teacher recruitment practices.
12. There will be no significant difference between rural and urban school districts in the per pupil expenditure for teacher recruitment.

13. There will be no significant difference between rural and urban school districts in the total number of financial incentive teacher recruitment practices used.
14. There will be no significant difference between rural and urban school districts in the use of specific financial incentive teacher recruitment practices.
15. There will be no significant difference between rural and urban school districts in the total number of internal teacher recruitment practices used.
16. There will be no significant difference between rural and urban school districts in the use of specific internal recruitment practices.
17. There will be no significant difference between rural and urban school districts in the total number of external teacher recruitment practices used.
18. There will be significant difference between rural and urban school districts in the use of specific external teacher recruitment practices.
19. There will be no significant difference between rural and urban school districts in the areas of teacher shortage reported.
20. There will be no significant difference between rural and urban school districts in the reported importance of specific financial incentive teacher recruitment practices.

21. There will be no significant difference between rural and urban school districts in the reported importance of specific internal teacher recruitment practices.
22. There will be no significant difference between rural and urban school districts in the reported importance of specific external teacher recruitment practices.
23. There will be no significant difference between districts experiencing teacher shortages and those not experiencing teacher shortages in the per pupil expenditure for teacher recruitment.
24. There will be no significant difference between districts experiencing teacher shortages and those not experiencing teacher shortages in the total number of financial incentive teacher recruitment practices used.
25. There will be no significant difference between districts experiencing teacher shortages and those not experiencing teacher shortages in the use of specific financial incentive teacher recruitment practices.
26. There will be no significant difference between districts experiencing teacher shortages and those not experiencing teacher shortages in the number of internal teacher recruitment practices used.
27. There will be no significant difference between districts experiencing teacher shortages and those not experiencing teacher shortages in the use of specific internal teacher recruitment practices.

28. There will be no significant difference between districts experiencing teacher shortages and those not experiencing teacher shortages in the total number of external teacher recruitment practices used.
29. There will be no significant difference between districts experiencing teacher shortages and those not experiencing teacher shortages in the use of specific external teacher recruitment practices.
30. There will be no significant difference between districts experiencing teacher shortages and those not experiencing teacher shortages in the reported importance of specific financial incentive teacher recruitment practices.
31. There will be no significant difference between districts experiencing teacher shortages and those not experiencing teacher shortages in the reported importance of specific internal teacher recruitment practices.
32. There will be no significant difference between districts experiencing teacher shortages and those not experiencing teacher shortages in the reported importance of specific external teacher recruitment practices.
33. There will be no significant difference between large and small school districts in the total number of teacher recruitment practices used.

34. There will be no significant difference between rural and urban school districts in the total number of teacher recruitment practices used.
35. There will be no significant difference between districts experiencing teacher shortages and those not experiencing teacher shortages in the total number of recruitment practices used.

Procedures

The following procedures were used in order to conduct this study.

1. A review of related literature was conducted.
2. A telephone call was made to Roger L. Nall in Cedar Rapids, Iowa, requesting permission to use the survey instrument he had developed. Permission was granted and a letter of confirmation was mailed.
3. Rosters of school districts within each state were obtained from Patterson's American Education, (Moody, 1989).
4. The survey instrument developed by Nall was revised following the review of literature. A pilot study was conducted to refine and to establish content validity of the revised instrument.
5. School districts within the six states having an enrollment of less than 2,500 students (small) or greater than 10,000 students (large) were identified and 100% of the large and 100% of the small school

districts were included in the study.

6. Survey instruments were mailed to each of the selected school districts.
7. Data obtained from respondents were tabulated and analyzed using the following tests of statistical significance: t-test for differences between means, the chi-square, and the Kolmogorov-Smirnov two sample test.
8. Findings were presented and summarized, conclusions were drawn, and recommendations for further study were made.

Organization of the Study

Chapter 1 contains the introduction, the problem, purpose, significance, limitations, assumptions, hypotheses, definitions of terms, procedures and organization of the study.

Chapter 2 is a review of literature related to the study.

Chapter 3 describes the methods and procedures used in collecting and analyzing the data.

Chapter 4 presents the data and an analysis of findings.

Chapter 5 provides a summary, conclusions, and recommendations resulting from the study.

CHAPTER 2

Review of Related Literature

Introduction

Teacher recruitment includes all activities undertaken to attract applications for employment from qualified individuals. Teacher recruitment activities have historically received emphasis during periods of teacher shortage. Conversely, school systems have given little attention to teacher recruitment during periods of teacher surplus, relying on the existing pool of applicants to fill local needs. Today, in geographic areas experiencing a shortage of teachers, whether limited to specific subject area shortages or broader, general shortages, a new emphasis has been given to teacher recruitment.

In the professional literature, renewed attention has been given to the subjects of teacher supply and teacher recruitment. Popular periodicals and educational journals have addressed the existence of a teacher shortage. Does a teacher shortage exist? Is the teacher supply adequate? Does a teacher shortage appear imminent? Is a teacher shortage, real or potential, spurring a renewed interest in teacher recruitment? What teacher recruitment practices are used and with what degree of effectiveness? These questions are explored in the review of literature.

Teacher Supply and Demand

A teacher shortage exists whenever the number of qualified persons willing to accept employment as teachers is less than the number needed to fill vacancies. Teacher shortages have varied geographically and by subject area. State education officers and various agencies have undertaken studies hoping to determine and project the adequacy of the teacher supply. The findings of a number of these studies have been reported and explored below.

Darling-Hammond (1984) was among those who reported an approaching shortage: "Given the current trends in school-age population, entrants to the teaching profession, and attrition, the supply of new teacher graduates may satisfy only about 80% of the demand for additional teachers by 1988" (p. 6). She cited increased opportunities for women and minorities, low teacher salaries, and reported that "the non-pecuniary rewards of teaching have also been dwindling" (p. V). Teachers, she stated, were no longer widely viewed as professionals. She predicted:

> We will in a very few years face widespread shortages of qualified teachers. We will be forced to hire the least academically able students to fill these vacancies and they will become the tenured teaching force for the next two generations of American school children (p. VI).

Sedlak and Schlossman (1986) explored the history of the teaching profession in American public education. They

attempted to gauge the size of the teaching force and the social class origins of its members. They concluded that "teacher shortages have been commonplace throughout the twentieth century. Nonetheless, it has proved possible, time and again, to raise certification standards during periods of protracted shortage" (p. 39). Thus, according to the above findings, quality in the teaching profession is not dependent upon the quantity of teachers available. These authors wrote that the one factor having the greatest influence on teacher supply was "the changing role of women in American society" (p. 40).

Zerfoss and Shapiro (1972) remarked that "the demand for teachers . . . is a function of enrollment; enrollment, in turn is a function of population" (p. 8). Changes in enrollment created by population trends have reflections in future enrollment patterns, as witnessed by the current echo-boom or boomlet created by the offspring of the children born during the post-World War II population explosion. Zerfoss and Shapiro wrote that two factors, successful teacher recruitment efforts and declining enrollment due to a lower birth rate, had combined to convert the teacher shortages of the 1960s into the teacher surplus of the mid-1970s.

Weaver (1983) conducted longitudinal analyses of teacher supply correlated with teacher quality, as determined by grade-point averages and ACT scores. Weaver

concluded his analyses had proved that the adequacy of the teacher supply and the intellectual quality of those individuals attracted to teaching could be directly correlated with teacher salaries. In the earliest years of his research, teacher candidates could not be distinguished in academic ability from those entering other fields. At that point, beginning salaries for teachers were comparable to those in other fields requiring a bachelor's degree for entry, for example, accounting. "By the mid-1970s, however, test scores of the initial [teaching] recruits had fallen significantly below the college-bound population mean, paralleling with remarkable precision the decline in job opportunities and the relative decline in salaries" (p. 65). Weaver wrote that the academic quality of those attracted to teaching is a function of market conditions, that able students make career choices on the basis of anticipated compensation. He also addressed teacher retention, stating that "teachers are dissatisfied with many things, but the precipitating factor that leads actually to changing occupations appears to be pay and opportunities in jobs other than teaching" (p. 64).

Grissmer and Kirby (1987) examined teacher attrition as a component of the teacher supply and demand curve and teacher supply/demand models. They stated that "teacher attrition rates are the major component in determining the annual demand for new teachers" (p. 2), providing at least

60% of annual vacancies. They reported that most "teacher attrition can be accounted for by . . . changes in a person's life and a desire for professional and job advancement" (p. 34). Of those items influencing teacher attrition, only retirement seemed to be related to educational policy. An unusually large cohort of teachers was found to be at midcareer. The authors expressed concern that teacher attrition due to retirement would greatly increase. "We can almost certainly expect attrition rates to increase in future years as the demand for new teachers rises and an increasing proportion of teachers reach retirement" (p. 3). Two additional types of attrition were predicted to result from an increasing retirement rate. These were attrition due to teachers moving between systems to earn higher pay and an increased rate of attrition due to the greater rate at which beginning teachers leave the profession. "Teacher attrition has the most uncertain historical estimates and is expected to change markedly in future years" (p. 2). Not only has teacher attrition been of major impact upon the perceived adequacy of teacher supply, it has been difficult to forecast, subject to market forces and the unpredictable behavior of individuals.

Haggstrom, Darling-Hammond, and Grissmer (1988) wrote that if one wished to assess the adequacy of teacher supply, one needed to be aware of several labor market indicators. As had been noted earlier by Grissmer and Kirby (1987),

openings for new teachers were not solely dependent upon shortages but were found to depend upon a number of factors. Observing the reported vacancy levels and the issuance of emergency certification could help the researcher begin to determine the level of teacher shortage. Haggstrom, Darling-Hammond, and Grissmer (1988) wrote that:

> Several indicators of potential and actual teacher shortage may signal that the labor market is getting tight . . . The indicators could include:
>
> - Increases in real salary levels--especially for beginning teachers;
> - Increases in emergency certifications;
> - Increases in "full-time" substitute teachers;
> - Increases in the average number of offers received by new education majors;
> - Increases in the number and average duration of vacancies;
> - Increases in class size; and
> - Increased occurrences of out-of-field teaching. (p. 46)

Haggstrom, Darling-Hammond, and Grissmer (1988) wrote that the best indicator of a teacher shortage, though perhaps a lagging one, could be a real increase in teacher salaries. If this statement can be regarded as correct, then recent findings that a real increase in teachers' salaries occurred during the late 1980s would seem to

indicate that a teacher shortage either currently exists or has existed during the 1980s ("Most Refreshing Consensus," 1989).

The teacher shortage has been the subject of numerous articles in popular, general-interest periodicals. Bowen (1985) in Time, reported that a teacher shortage, then pushing the city of Los Angeles to use an emergency recruitment center and emergency certification, could be expected to worsen. The shortage was predicted to have the greatest impact in southern and western sunbelt states. The shortage was attributed to low salaries and low prestige for teachers, coupled with the increasing number of expected teacher retirements. By 1988, Beck reported in Newsweek that "the hot field for America's young people was . . ." (p. 74) teaching. This change was believed to be due to increasing salaries for teachers, student awareness of job openings for teachers, and older professionals who were changing careers to enter teaching. Despite increased interest in teaching careers, Beck wrote, extraordinary measures may be needed to staff the nation's classrooms. The combined pressures of increasing enrollment and increased retirement were viewed as continuing contributors to a teacher shortage. The use of emergency and alternative certification routes was expected to continue (Beck, 1988; Tifft, 1989.)

Wise et al. (1987) wrote that some school districts might have difficulty filling teacher vacancies when the labor market indicates a plentiful supply. "Researchers have found that school district characteristics such as geographic location, climate, neighborhood and student characteristics, cost of living, class size, and other working conditions affect teacher supply" (pp. 2-3).

Urban areas were among those hard hit by the teacher shortage (Darling-Hammond, 1984; Jensen, 1987; McNergney & Haberman, 1989; Rothman, 1986; Wise et al., 1987). According to McNergney and Haberman (1989), some reasons for the difficulties which large urban systems have experienced when attempting to fill positions were lack of experience with and fear of urban schools among beginning teachers, the poor image of urban schools, and "geographic parochialism" (p. 14), the desire of beginning teachers to work near home.

Even when urban districts have managed to attract sufficient applicants to fill vacancies, attrition rates have been higher than the national average. In New York City one of eight beginning teachers resigns in less than a year. The attrition rate is 13.2%, compared to a reported national average of 6% (Olson & Rodman, 1987, June 3). The RAND Corporation suggests national attrition rates may now be as high as 9% (Olson & Rodman, 1987, June 24).

Paradoxically, small and/or rural school systems were also suffering from a shortage of teachers (Darling-Hammond,

1984; Jensen, 1987; Nall, 1982; Rothman, 1986; Wise et al., 1987). Schmidt (1990) wrote that "smaller districts often do not have the resources larger urban system have to recruit" (p. 19). Jensen (1987) wrote "potential candidates may know more about rural schools' disadvantages than about the advantages they frequently offer--smaller classes, greater participation in decision-making, community support" (p. 17). Nall (1982) surveyed Iowa teachers in small school systems, those enrolling 2000 or fewer students, to determine what led them to accept employment in that system. "Friendliness of staff, spouse's job, salary, philosophy of school, teacher load, and chance to use special skill" (p. 64) were cited as factors which had led teachers to accept employment in rural districts. Crawford (1987) found that "early experience in a rural community, attendance in a small college, and a desire for a rural life style" (p. 2816-A) were important factors attracting teachers to rural communities in Georgia. Anschutz (1987), in a study conducted in a seven state area in the midwest, found that the community had a great influence on those who were attracted to and remained in rural environments. Rural, married teachers who came from a similar environment were most likely to be recruited and retained by rural systems.

Specific subject area or certification area shortages have also been noted. Watts (1986) noted shortages in the areas of math and science. Jensen (1987) wrote that

vacancies in math, science, foreign languages, and special education were hard to fill. Darling-Hammond (1988) wrote that mathematics, science, special education, foreign languages, and bilingual education were shortage areas. In a report by Rothman (1986) of Feistritzer's study which debunked the teacher shortage, Feistritzer's mention of specific shortages of math, science, and foreign language teachers was noted. When updating the 1986 survey, Feistritzer was quoted as stating that bilingual education, handicapped special education, math, and science teachers continued to be in short supply ("Teacher Shortage Surveys," 1987). Schmidt (1990) wrote that severe shortages of bilingual teachers were occurring nationwide.

Subject areas of shortage have varied from state to state. Nall (1982) listed industrial arts, vocational agriculture, mathematics, science, and special education learning disabilities as shortage areas in Iowa. The Maryland State Department of Education (1986) cited special education, mathematics, trade and industries, business education, and industrial arts as "critical shortage" (p. 73) areas. Areas of concern were English, science, and elementary education, due either to the large number of persons teaching these subjects outside their areas of certification or to the large number of vacancies annually. New York City reported a severe shortage of bilingual school psychologists (Schmidt, 1990). In a report prepared for the

Maine State Legislature, Rydell, Gage, and Colnes (1986) reported a state-wide average teacher turnover rate of 10%, with the areas of art, handicapped special education, health occupations, music, reading supervisor, and resource room special education having annual vacancy rates of 12% or more.

A shortage of minority teachers has also been noted. This lack of minority teachers has been of special concern because the declining number of minority teachers has paralleled an increasing enrollment of students from minority groups in the public schools. Fewer minority students are attending college and fewer of those who attend are choosing to become teachers (Haberman, 1989: Rodman, 1985; Watts, 1986). Feistritzer was reported to have found a shortage of teachers from minority groups through surveys of teacher supply ("Teacher Shortage Surveys," 1987). Haberman (1989) wrote that fewer than 10,000 bachelors degrees in education were granted annually to minority students in this nation. Smith has predicted that, given present trends, "the average student who has about 40 teachers during his precollegiate years, can expect at best to encounter only two teachers who are members of a minority group" (Rodman, 1985, p. 11). Curiously, "the New Jersey [alternative certification] program has had success recruiting large numbers of minority candidates . . . 22 percent of the participants have been minorities, which is

double the percentage of the state's teaching force that is minority" (Gursky, 1989, p. 48).

As previously noted, the United States has experienced teacher shortages prior to the late 1980s. Weaver (1985) wrote, "Wilson, Eisenhower and Johnson have made the issue of teacher shortages a matter of national urgency. Each period of 'critical' shortage has been followed by a surplus, and each surplus has been followed by still another 'critical' shortage" (p. 5). Responses which were made to meet staffing needs during earlier crises can be expected to be utilized today. What have educators done in an attempt to provide teachers for students during earlier periods of teacher shortage?

One strategy sometimes used to staff classrooms during periods of teacher shortage has been to increase class size. Edelfelt (1986) and Weaver (1983) described this strategy, with Weaver noting that given enrollment and teacher supply projections, the size of the average elementary classroom roster would grow from 20 in 1980 to a count of 25 in 1990.

Another approach has been the relaxation of standards for teacher certification, in order to staff the nation's classrooms. Wise (1986) wrote that "as long as standards can be relaxed, the supply of teachers is unlimited" (p. 650). Wise (Olson & Rodman, 1987, June 24) stated that "if suddenly you define any college graduate as a potential teacher, then you have a large new pool of teachers" (p.

16). Feistritzer considered any college graduate to be a potential teacher, according to Olson and Rodman (1987, June 24), and thus concluded that no shortage existed. Edelfelt (1986) wrote that though shortages still seemed to be limited to specific shortage areas, emergency certificates were being issued. Thus, the relaxation of standards approach to staffing classrooms has apparently been enacted.

Crash programs of teacher education have been inaugurated during earlier periods of shortage, Edelfelt (1986) wrote. Roth (1986) concurred, noting "the proliferation of alternative routes to certification" (p. 725). Bradley (1990) described a program, Teach for America, which, using corporate support, has been designed to attract college seniors to teaching via an intensive summer training program to be followed by a two year commitment to teaching. Toch (1990) wrote that Teach for America's recruits would be serving in participating rural and urban school systems across the United States. Wilson (1990) reported specific placements for Teach for America's recruits, stating that after a summer internship in Los Angeles, participants would begin teaching assignments in urban New York, Los Angeles, or New Orleans, or in rural North Carolina or Georgia. Although touted as a means to attract talented persons to education from other fields (Beck, 1988; Olson, 1987), the wisdom of alternative certification has been questioned. Haberman (1989) wrote

"the world of alternative programs is guided by the value of expediency: doing whatever is necessary to help the urban schools pretend that they have enough qualified teachers" (p. 774). Beck (1988) and Haberman (1989) also noted the contradictions inherent in current moves to raise certification requirements for those following traditional paths to teaching and simultaneously, to provide alternative certification routes with less stringent requirements, a possible "back door that could weaken standards" (Beck, 1988, p. 76). The fear of weakening standards in order to staff urban schools appeared to be supported by Beck's statement that "in many cities, about half the new teachers . . . are older professionals, switching to teaching from other fields" (p. 74). Gursky (1989) noted that some urban districts' alternative programs were established to combat teacher shortage conditions and that "provisional teachers often end up teaching disadvantaged students" (p. 47).

Another approach to specific subject area teacher shortages has been to assign teachers to provide instruction in subjects outside their field. Olson and Rodman (1987, June 24) noted percentages ranging from 17% reporting out-of-teaching field in a National Education Association survey, to 3.5% reported by the Center for Education Statistics. Roth (1986) wrote that the practice of assigning teachers out-of-field had become widespread due to the teacher shortage and could be expected to increase.

Watts (1986) suggested that the education reform movement may fall victim to the teacher shortage.

> The sockdolager of the current education reform movement may prove to be the way in which educators respond to the conflict posed by a push for higher professional standards in the face of a growing teacher shortage. If we allow the teacher shortage to become an excuse for staffing classrooms with anything less than the most competent, best trained, and fully certified teachers, education in the U.S. could be headed for a real downward spiral. (p. 723)

Watts stated that it is time for educators to abandon our "tradition of nondisclosure" (p. 723) in order to fully inform the public of the seriousness of the teacher supply problem and to mobilize the public to address the teacher shortage. Watts suggested that we tap the reserve pool of currently inactive certificated teachers, remarking that part time opportunities and job sharing might entice some into the market place. He further suggested allowing retired teachers to return to classrooms without loss of retirement benefits and reassigning administrative and supervisory personnel to classroom posts. Raising teacher salaries was a suggestion, as was freezing the use of emergency certificate holders at current levels, while fully informing the public of each vacancy.

Wise (1986) offered three possible responses to the teacher shortage. The "business as usual" reaction would staff the schools by relaxing standards. A "two-tiered scenario" would staff schools with a core of seasoned professionals directing the efforts of temporary or short-term beginning teachers. This two-tiered strategy appeared to comply with Haberman's (1989) statement "that in all U.S. school districts 50% of the beginning teachers leave within six years" (p. 773). Wise's third approach was the "professional scenario," requiring education to attract quality, to pay salaries sufficient to retain quality teachers, and to improve teachers working conditions.

Edelfelt (1986) suggested national coordination of efforts to deal with the issue of teacher supply, stating that in the past "finding adequate staff has been left to the school districts suffering the shortage" (p. 31). He listed 16 ideas for coping with the teacher shortage.

Teacher Recruitment

Recruitment "refers to those activities in personnel administration designed to make available the numbers and quality of personnel needed to carry on the work of the school system" (Castetter, 1986, p. 184). Recruitment has been defined herein as the process of notifying prospective applicants of openings in order to attract applications. The recruitment process has been described and delineated by Bolton (1973), Harris, McIntyre, Littleton and Long (1985),

Castetter (1986), LoPresto (1986), and others. Descriptions of the recruitment process, as outlined by various writers, are presented in the following paragraphs.

Those who addressed personnel recruitment were in unanimous agreement about its importance. LoPresto (1986) wrote, "the acquisition of new employees is a most important and complex task. To find and employ the best individuals available is every human resource manager's goal" (p. 13-1). Castetter (1986) wrote, "as the competition increases for qualified talent . . ., the processes involved in locating, attracting, selecting, and socializing human resources become ever more critical" (p. 184). Harris, McIntyre, Littleton, and Long (1985) stated, "Undoubtedly the most important influence on the quality of an instructional program is the collective competency of the professional staff, and the recruitment and selection of able personnel are the sine qua non of the development of a competent staff" (p. 103).

Bolton (1973) agreed, stating that a recruitment program has as its purpose the provision of a sufficient number of qualified applicants to allow a school district to choose the most qualified applicant. Bolton suggested that even when the number of applicants is sufficient, school districts should monitor and evaluate recruitment strategies to determine if the use of modified recruitment practices might attract either applicants with higher qualifications

or greater diversity among applicants. Suggested recruitment practices included:

1. Develop close relationships with colleges and universities.
2. Sponsor district tours and visits for college placement officers.
3. Send minority employees to identify candidates among minority groups.
4. Participate in career day programs.
5. Provide speakers for university teacher education programs.
6. Provide curriculum materials for use in university classrooms.
7. Encourage employees to ask qualified persons to apply; consider paying bonus to recruiter if referred person hired.
8. Establish a temporary recruitment center in a given geographic area, well-advertised in advance. This strategy has attracted experienced teachers.
9. Develop audiovisual presentations and brochures describing the community and schools.
10. Advertise in Afro-American newspapers.

Bolton urged school districts to conduct research to determine the effectiveness of various teacher recruitment strategies.

Harris, McIntyre, Littleton, and Long (1985) expressed concern that many education agencies adopt a passive or even forbidding approach to would-be-applicants. They encouraged schools to recruit actively even during periods of teacher surplus. When planning a recruitment program, they urged school systems to first "tap the usual" (p. 105), and outlined 12 recruitment strategies to be considered.

1. Contact college/university placement officers.
2. Contact appropriate departments and divisions of universities and colleges.
3. Contact state and local employment agencies.
4. Use private employment agencies.
5. Contact professional organizations
6. Use professional journals.
7. Contact retired educators.
8. Contact non-practicing educators.
9. Involve community leaders.
10. Develop appropriate techniques to attract applicants from minority groups. (a) Identify underemployed candidates. (b) Retrain personnel with potential. (c) Seek applicants from areas experiencing teacher surplus conditions. (d) Consider "early contracting" (p. 107), that is, recruit and hire prior to graduation, subject to graduation and certification..
11. Make the school system a good place to be.

12. Encourage professional growth for employees.

Castetter (1986) advocated the development of a system-wide recruitment policy. Recruitment strategies should be based upon the system's recruitment policy and should maximize the number applying for each position. The recruitment policy should include affirmative action guidelines. The recruitment process, as Castetter outlined, included the following features:

1. Recruitment plans developed.
2. Communication forms developed and standardized.
3. Information management system developed and implemented.
4. Recruitment calendar developed and activities scheduled.
5. Information management system monitored and controlled.
6. Recruitment allocation included in budget.

Castetter encouraged school districts to evaluate the effectiveness and productivity of various teacher recruitment strategies and to use these evaluations when planning future recruitment activities. He emphasized that large and small school systems might find different strategies to be beneficial. Among recruitment sources he suggested were (a) campus and field recruiting, (b) production and use of advertising and recruitment literature; and (c) the use of placement and employment

agencies. He stressed the need for special efforts to attract applicants from members of minority groups.

Castetter (1986) urged school districts to calculate a district application ratio, defined as "the number of applicants applying for each position (10:1, 20:1, etc.)" (p. 189). No ideal ratio was mentioned, but various authors cited the desirability of a large applicant pool (Bolton, 1973; Castetter, 1986; Jensen, 1987). Jensen (1987) wrote of a rural superintendent who had emphasized recruitment, with a resulting growth in the application ratio from 6:1 to 60:1 over a period of 7 years. Feistritizer was quoted as reporting that:

> [A] Fairfax County, Va. [official] reported 19 applicants for every one of his 450 openings; San Diego is getting up to 1,000 applications a week for its 550 openings; Denver had 1,500 people seeking 100 jobs, and Polk County, Fla. has 20 job-seekers for each of its 54 vacancies. ("Teacher Shortage Surveys," 1987, p.16)

Beck (1988) wrote that Dade County, Florida reported a 9:1 application ratio. Gursky (1989) stated that the Holmdel School District in New York City's, New Jersey suburbs, sometimes has a 100:1 application ratio. Thus, application ratios varied widely and no application ratio standard was found.

Jensen (1987) wrote "the teacher marketplace is increasingly competitive. Districts that are able to offer

employees higher salaries and pleasant working and living conditions may attract a large pool of qualified applicants" (p. 15). Districts facing shortages have taken creative approaches to the problem. She stressed that districts must actively seek applicants and encouraged continuous recruitment. She listed the following suggestions for improving teacher recruitment:

1. Develop policies and budget.
2. Select recruiters with care.
3. Recruit throughout the year.
4. Be prepared to sell the district and the area.
5. Cooperate with other districts to recruit teachers.
6. Publicize the determination to recruit high quality teachers.

She urged school districts to increase wages and fringe benefits, emphasizing the fact that a quality applicant's decision to accept a teaching post will be influenced by salary. In addition to salaries, she stated, working and living conditions were important considerations to potential applicants.

In a discussion of recruitment techniques, LoPresto (1986), stressed the need to attract quality applicants, since recruitment can be costly. He urged employers to develop and implement a method of maintaining skills inventories for current employees and to use these as a

component of a viable internal transfer and promotion program. He also suggested that employees be viewed as unofficial recruiters because "the quality of employee referrals tends to be higher than that from most outside recruitment sources" (p. 13-5). Among external recruitment sources he listed were:

(a) College and university contacts, i.e., placement officers and through them, professors.

(b) Employment agencies and referral sources, including public, private, and professional association offices.

(c) Advertising, print and audiovisual.

(d) Recruitment literature.

LoPresto encouraged contact with write-in applicants and suggested interviewing walk-in candidates, though he mentioned that walk-ins may be of lower quality. He recommended recording "all recruitment costs by source and to continually determine by which methods you are obtaining your best employees" (p. 13-25).

Darling-Hammond (1984), in her pioneering work predicting the teacher shortage, suggested that school districts should take several steps to attract an adequate pool of quality applicants. These included raising salaries to approximately $20,000 for beginning teachers, ranging to $50,000 for veteran teachers. Beyond the salary increase,

she recommended scholarships and forgivable loans to entice students to enter teacher education programs.

Wise et al. (1987), in a study of teacher recruitment in six urban school systems, found that despite extensive recruitment programs in five of the six systems, many new hires were either people who had moved to the area for personal reasons, or were local natives, former interns, teacher assistants, or substitutes within the system. Rochester, New York, before its widely publicized salary increases and restructuring efforts, reported that its "most fruitful recruitment effort . . . is its practice of interviewing applicants throughout the year" (p. 45). Durham County, North Carolina reported a limited recruitment budget, and stated that many qualified persons move to the area, often due to spouse transfer to a Research Triangle Park concern. East Williston, New York reported using New York Times classified advertising and informal connections. East Williston has hired only experienced teachers who are observed in the classroom prior to hire. "Teachers in East Williston note that the selection process is 'intense' and is a major recruitment device" (p. 34). Hillsborough County, Florida (Tampa) school personnel officers stated that the personnel office has a "staff of 28, . . . recruits at 85 schools of education in 10 states, handles a large applicant pool (approximately 800) . . ., fills many vacancies (600 in 1984) and manages a mobile work force"

(p. 37) with a large number of leaves and transfers. Mesa, Arizona school officials conducted formal campus recruiting visits and distributed recruitment literature, to "hire mostly experienced teachers who are attracted to the area" (p. 16). Mesa's efforts were believed to be hindered by state laws limiting transferred, out of state experience to five years. Montgomery County, Maryland had scaled back its recruitment office since the shortage days of the late 1960s and was targeting specific schools of education.

Based upon research described above, Wise et al. (1987) listed concerns and recommendations. A concern mentioned was "satisficing", that is, "natural recruiting advantages indigenous to a school district's locale may limit ability or willingness to search for the best candidate" (p. 69). This complacent satisfaction with an existing pool that can hinder recruitment may be due to:

1. The local district's ability to rely upon a supply of teachers moving to the area.
2. The attractiveness of the lifestyles the region affords which may draw applicants.
3. Local industries or universities supplying a stream of teacher spouses.
4. A local reputation for supporting teachers attracts applicants.

Recommendations were to examine state and local policies to determine if these hinder recruitment, to raise salaries to

attractive and competitive levels, to improve teacher working conditions, to "eliminate arbitrary limits on salary schedule placements and be prepared to provide travel and moving expenses" (p. 81).

The Maryland State Department of Education (1986) recommended that its school districts experiencing shortage conditions establish coalitions for cooperative efforts with other systems, and that the state should lead recruitment efforts. Representatives of the states of California, Connecticut, Florida, and Virginia had shared information about each state's experiences with teacher supply and demand. Florida reported a continuing shortage of teachers and aggressive recruitment practices. Virginia reported that 50% of newly hired teachers were experienced teachers. Connecticut reported no current or foreseeable teacher shortage. California expected teacher shortages to continue, reported use of emergency certification procedures, and widespread recruiting efforts. Recommendations for Maryland school districts included attention to the quantity and quality of the applicant pool, special efforts to recruit members of minority groups, and that special attention be given to the development of instate sources of teachers as some 70% of Maryland's teachers were imported from other states. The use of emergency certification was deemed "inappropriate" (p. 78).

Nall (1982) recommended that small school systems seeking to improve recruitment efforts consider several suggestions. These were:

1. Recruitment should be a continuous effort.
2. Develop recruitment plans.
3. Prepare a recruitment budget.
4. Know what motivated current teachers to accept employment in the system.
5. Assign a current teacher to recruitment activities within the district.
6. Tap local sources first.
7. Develop recruitment literature.
8. Assist a current teacher to gain additional certification.
9. Try to retain good teachers currently employed, especially those in shortage areas.
10. Coordinate recruitment efforts with other districts.
11. Formulate long-range plans.
12. Analyze information gathered through above activities and use data to evaluate recruitment efforts.

Renner (1985) wrote that most school systems list openings with area colleges and universities and place local newspaper advertisements. He suggested that recruitment efforts could be improved by (a) advertising widely, (b)

telephoning, (c) recruiting early, (d) de-emphasizing interviews, (e) emphasizing classroom observations, and (f) giving the candidate and newly hired teacher personal attention. Renner regarded the observation visit as an extremely successful recruitment technique, so much so that the candidate's colleagues were impressed by the interview process and submitted resultant applications.

Van Meter (1984) urged school systems to study state laws and then to offer prospects incentives that would be in compliance with those laws. Eight incentives were suggested, including bonuses, extended contracts, tuition payments, altering the workday, and accelerating sabbatical leave.

Burnside (1987), describing teacher recruitment efforts in a growing school district in California, listed 15 tips for those building recruitment programs. Among these were targeting specific geographic regions, involving current staff and the community, making early arrangements to attend job fairs, programming the interview, providing specific information, helping teachers relocate, and maintaining a hotline to answer questions from new hires. She encouraged recruitment planners to "remember why teachers take jobs . . . Teachers often seem to enter the profession because of a 'calling'; once they are on the job, their major concern is working conditions" (p. 29).

Hanes and Hanes (1986-1987) expressed concern that recruiters were ignoring "those factors that cause students to self-select teaching as a career. Calling attention to the best qualities of teachers and to memorable master teachers needs to be a part of the broader recruitment approach" (p. 5). The authors believed that recruitment efforts directed toward young students were probably futile. They stressed that searching solely for academic ability could eliminate from selection criteria such important considerations as "service orientation, successful job experiences with children, and a perceived commitment to teaching" (pp. 1-2). Recruitment programs should include information about the increases in teacher salaries and about support programs for beginning teachers.

The American School Board Journal noted that good teachers were difficult to find and asked its readers what change would attract teachers. Options provided were (a) to revamp certification requirements to allow any college graduate to teach, (b) to provide forgivable loans or scholarships for those seeking certification in shortage areas, (c) to mount aggressive recruiting campaigns, (d) to retrain current teachers in shortage areas, and (e) to raise salaries ("Query: How to," 1984). The overwhelming choice of respondents was to raise salaries across the board and for beginning teachers. Only 10% suggested aggressive recruiting ("Finding: Higher Salaries," 1985).

Young and Elliott (1986), in a report of teacher recruitment practices in some Canadian schools, wrote that an over-supply of teachers existed and most systems did not recruit. The use of internal posting of vacancies to alert current employees was noted. One system reported using the classified advertising section of a metropolitan daily. Most stated that they relied on unsolicited applications and the individual's drive to obtain the job. Candidates known locally, either through student teaching or substituting, were often hired.

Watson (1980) surveyed school systems in Northeast Texas to determine what recruitment practices were used. He found that recruitment occurred primarily in the spring, that 47% of the school districts had formal recruitment policies, that the principal and superintendent were responsible for recruitment, and that only 29% of the districts used recruitment literature. College or university placement offices, referrals from other systems, and active application files were the most commonly used recruitment sources, which led Watson to conclude "the district officials used relatively few of the sources available in the recruitment of teachers" (p. vii). He also noted the lack of formal procedures for evaluating teacher recruitment activities.

Bateman (1986) advocated early contracting, offering contracts to promising students in December, prior to spring

graduation. Promising candidates were given expense-paid community tours and treated to a banquet. Bateman regarded this approach as productive and cost-effective. He reported that his district in Virginia had no shortage of applicants.

In addition to other mentions of the importance of salaries contained herein, Jacobson (1986/1987) analyzed the impact of salary schedule changes on teacher recruitment and retention. He concluded:

> When districts improved their entry-level salary ranking, they subsequently improved their ability to recruit the most highly educated teachers available. Retention analyses indicated that teachers with more than 10 years of experience were influenced more by the magnitude of change in [salary] than by changes in salary rankings. (p. 2827-A)

Overall improvements in compensation for teachers would seem to be desirable, with impact upon recruitment and retention. Power (1987) described a Fairfax County, Virginia teacher who had elected to postpone retirement for at least 3 years due to a raise of approximately $5,000 annually and the promise of more to come.

Clayton (1987) and Wise et al (1987) have mentioned the need to examine teacher pension benefits. Historically, regulations for teacher retirement programs have served as a hindrance to teachers' ability to respond to market conditions and to seek better salaries. A move to a

transferrable or portable pension that could be moved from state to state could "prevent serious teacher shortages or surpluses in given districts" (Clayton, 1987, p. 23). Teachers free to move pensions would have greater ability to respond to recruitment efforts and to pursue more attractive working environments.

As previously reported, Burnside (1987) expressed concern that recruiters often ignore the intrinsic factors which drive individuals to become teachers. This concern was shared by others. Kean (1986) wrote, "teachers care about the intrinsic rewards of teaching and the professional environment of the school. If we want to attract able teachers--and to keep the ones we have--we have to respond to what they care about" (p. 205). Chapman and Green (1986) reported that individuals who graduated from teacher education programs but "never taught reported a lower initial commitment to teaching [and] assigned greater importance to financial rewards" than did "teacher education graduates who had taught continually" (p. 277). In a Maine study, Rydell, Gage, and Colnes (1986) reported that principal reasons cited for selecting a teaching career included a desire to work with people and a desire to help others. Even these current, former, and future teachers indicated a dissatisfaction with teacher salary and working conditions. McManus and Matthews (1986) compared influences upon career choice among education majors and among those

pursuing liberal arts degrees. Those in the college of arts and sciences ranked salary, job market conditions, prestige, and opportunity for advancement higher. Education majors rated the opportunity to contribute to society and to work with congenial colleagues higher. Again, the primary motivators were intrinsic. Perhaps designers of recruitment programs should consider these motivators, as suggested, while striving to improve those extrinsic factors which affect career choice.

Specific Teacher Recruitment Practices

Specific teacher recruitment practices have been identified through a review of related literature. Nall (1982) divided recruitment activities into two categories, in-district and out-of-district. Castetter (1986) used the terms "internal personnel sources" (p. 206) and "external personnel sources" (p. 210). LoPresto (1986) wrote of internal and external "sources of labor supply" (p. 13-8). For the purposes of this study, three divisions have been made. Recruitment techniques are categorized as either internal, external, or financial incentive. The financial incentive division grew from the review of literature, through which a number of recruitment practices which used a monetary base to attract candidates were noted. Some examples are increasing salaries, offering bonuses, and offering tuition assistance. Specific recruitment practices are categorized and described in the following paragraphs.

Internal Recruitment Practices

Internal recruitment practices are those specific teacher recruitment practices whose impact is felt within the district. One type would be planning and development activities which must take place within the district before external recruitment can seriously be undertaken. Another type of internal recruitment practice is that designed to inform current teachers and other employees of opportunities within the district and to contact education associations within the district. Such activities are either in-house, or, at least, in-district.

Bringing prospective teacher into district for visit. Bringing the prospective teacher into the local school district for a visit and tour was listed as a recruitment technique by Bateman (1986), Jensen (1987), and Nall (1982). Bolton (1973) suggested that the local district sponsor tours for college and university placement officers. Nall (1982) found that in 5.3% of the school systems he surveyed, bringing candidates to tour the district was the most important recruitment technique.

Assigning an individual to help conduct tours for prospective teachers. Assigning an individual to help conduct tours for prospective teachers was among the recruitment techniques listed by Nall (1982). Jensen (1987) described a school district that invites candidates to

visit, tour, observe, and participate in activities designed to acquaint candidates with the district. Bateman (1986) described a broad-based effort involving community tours and banquets for highly talented college seniors.

Posting job vacancy in district. Posting announcements of vacancies within the district was listed by Castetter (1986), LoPresto (1986), Nall (1982), and Young and Elliott (1986) as an established personnel practice. This can alert current employees to openings for which they may wish to apply and enable them to serve as unofficial recruiters, informing others of the vacancy. LoPresto (1986) wrote that "the quality of [employee] referrals tends to be higher than that from most outside recruitment sources" (p. 13-5), noting that some problems which could arise through this approach included affirmative action concerns and possible nepotism.

Assigning a teacher to recruitment activities. Assigning a current teacher to recruitment activities was among those techniques listed by Nall (1982). Bolton (1973) suggested enlisting the aid of minority teachers when attempting to "identify candidates among minority groups" (pp. 62-63). Burnside (1987) wrote of securing assistance from teachers when visiting their alma maters.

Helping a current teacher to gain certification in shortage area. "Helping a teacher within the district to

gain certification in a shortage area" (p. 42) Nall (1982) included among recruitment techniques. Nall found this practice was of moderate use and importance in districts he surveyed. Harris, McIntyre, Littleton, and Long (1985) suggested that school systems consider retraining personnel with potential, especially members of minority groups. LoPresto (1986) supported the transfer and promotion of current personnel. Only 1% of respondents to a survey conducted by American School Board Journal selected retraining current personnel in shortage areas to combat the teacher shortage ("Finding: Higher Salaries," 1985).

Asking current teachers to recommend prospective teacher candidates. Nall (1982) found this recruitment technique to be of little to moderate use and importance among Iowa districts he surveyed. Wise et al. (1987) wrote that many system hire local natives and known quantities, for example, former interns, teacher assistants, volunteers, students, or student teachers. This would indicate the existence of either a formal or informal practice of obtaining input from a district's current teachers.

Working with teachers' associations. Nall (1982) found this internal recruitment practice to be of little-to-no importance. Harris, McIntyre, Littleton, and Long (1985) recommended the use of professional association contacts when recruiting. LoPresto (1986) wrote of placement

services often offered by professional associations, which might require the local affiliate to contact a state, regional, or national agency.

Preparing recruitment literature. Preparing recruitment literature, including a descriptive brochure, was found to be of little-to-moderate importance by Nall (1982). The use of recruitment literature was supported by Bolton (1973), Burnside (1987), Castetter (1986), LoPresto (1986), and Wise et al. (1987).

LoPresto (1986) had specific suggestions for the preparation of recruitment literature aimed at students. "Literature should be attractive and descriptive to motivate the reader" (p. 13-14). He wrote that recruitment literature should make "use of action photographs of employees, including minorities and women" (p. 13-15). Opportunities afforded by the area, including educational, cultural, and recreational features and attractions, should be described. Working conditions, plus opportunities for professional growth and for advancement, should be presented. Qualifications and application procedures should be discussed. The purpose of recruitment literature should be to present information and to arouse interest, thus, literature must be attractive.

Contacting the local Future Teachers of America Chapter. Nall (1982) found contact with the local chapter

of Future Teachers of America to be of little-to-no importance. However, it was described by Olson and Rodman (1986, June 18) as a recruitment technique in use in a period of teacher shortage conditions.

Developing long-range recruitment plans. Nall (1982) found the development of long-range recruitment plans to be of little-to-moderate importance in districts he surveyed. Castetter (1986) regarded the formation of recruitment plans as essential planning to be carried out by the district's central office. Such planning should include descriptions of the communications that will occur with applicants. Jensen (1987) wrote that "as a beginning, school boards need to adopt written policies that declare the district's commitment to hiring the most qualified teachers. They also need to authorize budgets that allow creative, aggressive recruitment" (p. 10).

External Recruitment Practices

External recruitment practices are those specific teacher recruitment practices designed to attract applications from beyond the school district's boundaries. External recruitment activities can include a number of options, from the traditional, contacts with college placement offices, to the less traditional, use of imprinted memorabilia, or even to international recruitment. External

recruitment practices identified through a review of literature are presented in the following paragraphs.

Placing a classified advertisement in a major instate newspaper. The use of the classified advertising services of a major instate newspaper has been a major recruiting device. Nall (1982) found the use of the Des Moines Register to be of great importance in the Iowa schools he surveyed, more important than any other recruitment technique. The use of this technique was recommended by LoPresto (1986), Renner (1985), Wise et al. (1987), and Young and Elliott (1986).

Placing a classified advertisement in a major metropolitan newspaper in another state. As stated earlier, this recruitment practice has proved to be effective. Jensen (1987) suggested the use of print media beyond a state's borders. LoPresto (1986) cited the importance of this approach. Bolton (1987) advocated the use of minority newspapers to attract members of minority groups. Renner (1985) and Burnside (1987) wrote of the productivity of this approach, with Burnside describing it as one that could attract experienced teachers.

Placing a classified advertisement in a local newspaper. Local newspapers often have a wide circulation, through public and academic libraries and through subscriptions carried by far-flung readers. Such

advertisements might produce applications from a neighboring city or county or from a former resident with thoughts of returning. This classified advertising approach should be as productive as advertisements placed in major metropolitan newspapers. Nall (1982) found this approach to be of relatively little importance in the Iowa schools he surveyed.

Placing an advertisement in a trade journal. Placing an advertisement in a trade journal, for example Teacher Magazine or the weekly education newspaper, Education Week, should, according to LoPresto (1986), generate fewer applications than other classified advertising, but from higher quality applicants. Nall (1982) found this approach of little-to-no use or importance in the Iowa schools he surveyed. Renner (1985) recommended advertising widely. Harris, McIntyre, Littleton, and Long (1985) advocated the practice of trade journal advertising. Orr, as quoted by Nall (1982), wrote "American public personnel agencies have made surprisingly little use of selective advertising in trade papers, professional journals, and so forth" (p. 21). Nall's finding supported Orr's statement.

Producing a video or television advertisement. Production of a video presentation or of an advertisement to be televised was recommended by Bolton (1973). The use of audiovisual presentations to attract applicants was

described by Olson and Rodman (1986, June 18), who reported the use of public service announcements and videotapes to promote teaching as a career. Nall (1982) found the use of this approach to be insignificant, of almost no importance in his Iowa survey.

Producing a radio advertisement to attract teachers. The production of radio advertisements was described favorably by Nall (1982), who wrote, "radio ads can have good impact" (p. 19). However, in districts he surveyed, the use of radio advertisements was of no importance. Olson and Rodman (1986, June 18) reported its use in California recruitment campaigns.

Contacting college/university placement offices within the state. Contacting college placement offices within the state has long been a favored teacher recruitment practice. Jensen (1987) wrote that this technique was of special importance to rural schools. Renner (1985) wrote of contacts with schools within the state. Bolton (1973), Harris, McIntyre, Littleton and Long (1985), LoPresto (1986), and Wise et al. (1987) wrote of the importance of maintaining contact with schools within the state. The Maryland State Department of Education (1986) encouraged school districts to contact state schools of education, reporting that qualified graduates within the state were not finding employment in education, while as many as 70% of new

hires in some subject areas were recruited from other states.

Contacting college/university placement offices in other states. Contacting placement offices in colleges and universities outside the state was mentioned as an important recruitment technique for shortage areas and for urban and rural schools. In addition, this option was found to be an important one for districts impacted by the teacher shortage by Jensen (1987) and Burnside (1987). Burnside described steps which school systems conducting out of state recruitment could follow. Olson and Rodman (1986, June 18) listed Florida and Maryland as traditional importers of new teachers and stated that several states and districts seemed to be joining the teacher importers. School systems in California were specifically cited. "Tennessee has become fertile ground for teacher recruiters from other states . . . when the Los Angeles school system set up a recruiting station in a downtown Nashville hotel, they found among their applicants mainly experienced teachers" ("Tennessee Becoming," 1989, p. 7). States listed as seeking teachers on Tennessee campuses included Texas, Florida, North Carolina, Georgia, South Carolina, Maryland, Michigan, Missouri, and Kansas ("Tennessee Becoming," 1989).

Contacting the State Department of Education or Public Instruction. Contacting representatives of the State

Department of Education for assistance with teacher recruitment was found to be of little-to-moderate use and importance in the Iowa school districts surveyed by Nall (1982). Olson and Rodman (1986, June 18) wrote, "Some states are also creating clearinghouses or hotlines to hook up job applicants with district openings" (p. 12). Such services, sometimes including toll-free telephone hotlines, have been established in Delaware, Kentucky, New York, Texas, Virginia, and Florida. The Maryland State Department of Education (1986) delineated the department's involvement in teacher recruitment and urged greater coordination and cooperation among instate agencies.

Using informal contacts in another, neighboring school district in a search for teacher candidates. Nall (1982) specified using this technique when searching for teachers with shortage area certification and found it to be of little to moderate use and importance. Jensen (1987) noted that district's were now occasionally raiding, persuading outstanding teachers to leave a neighboring system. Schmidt (1990) wrote that California systems were luring bilingual teachers from other areas with bonuses. Wise et al. (1987) wrote that the East Williston, New York district hired only experienced teachers and that most new hires were from the Long Island region. East Williston has customarily visited applicants on the job and has viewed the pre-employment visit as a recruitment technique which spurs impressed co-

workers to apply. The Maryland State Department of Education (1986) recommended that school districts collaborate to recruit new teachers.

Posting vacancies in community. As some 30% or more of persons who graduate with teaching certificates are never employed as teachers, this approach could offer a means to attract the non-practicing educator (Carnegie Foundation for the Advancement of Teaching, 1987). Nall (1984) found this technique to be of little use or importance. This approach would seem to be supported by Watts (1986) who urged "full public disclosure" (p. 723) of all vacancies and efforts to fill these with qualified personnel. Burnside (1987) wrote, "To make sure the community understands what we're doing, we send detailed news releases on the recruitment process to our local newspapers, explaining what we are trying to accomplish" (p. 28).

Forming a coalition with another district to enhance recruitment efforts. Nall (1982) wrote, "Several districts could band together to cooperate in attracting candidates for those member districts" (p. 20), but found this approach to be of little to no use and importance in the Iowa districts he surveyed. The Maryland State Department of Education (1986) recommended cooperative efforts for its school districts experiencing shortage conditions. Jensen

(1987) urged small district to "combine efforts to recruit teachers" (p. 20).

Soliciting applications from certificated, nonpracticing prospects. Watts (1986) urged the solicitation of applications from certificated, nonpracticing prospects as a method of addressing teacher shortage conditions. Nall (1982) had surveyed the use of "asked teacher candidates to apply who had not applied for a position" (p. 81) and the reported item was of limited use and importance.

Paying recruiting visits to campuses. Conducting recruitment interviews on college and university campuses has long been a feature of industrial recruitment and has become important for school districts seeking teachers. Jensen (1987) wrote of planning to hire one or two teachers at each stop on the recruitment tour. Wise et al. (1987) wrote that Hillsborough County, Florida; Rochester City, New York; and Montgomery County, Maryland visited a number of campuses, ranging from a total of 24 to 85. Recruitment visits to college and university campuses were recommended by Bolton (1973), Castetter (1986), Harris, McIntyre, Littleton, and Long (1985), LoPresto (1986), and Renner (1985). Castetter wrote that this approach, though readily accepted and apparently simple "requires careful planning if it is to be successful" (p. 210).

Hiring a consultant to assist with teacher recruitment efforts. Consultants or executive search agencies have been widely used to fill executive positions but less widely used to fill teaching slots. Olson and Rodman (1986, June 18) reported the use of advertising consultants to develop recruitment campaigns. LoPresto (1986) cited industry's use of executive search agencies. Harris, McIntyre, Littleton, and Long (1985) recommended the use of private employment concern to help fill teacher vacancies. Nall (1982) wrote, "Use of search consultants would certainly be viewed as nontraditional as a way of recruiting candidates for critical shortage areas" (p. 18), and found this technique to be of almost no use or importance.

Participating in teacher recruitment fairs. Teacher recruitment fairs have spread throughout this land, to become a major recruitment device for large urban systems and for cooperative regional and state-wide efforts to attract teachers. As early as 1973, Bolton was advocating the use of "temporary recruitment centers in a given geographical area well-advertised in advance" (p. 63) and suggesting that this technique could attract experienced teachers. This suggestion was repeated by Burnside in 1987. Some recruitment fairs have been hosted in the state of Florida, in the Boston area, in Washington, D.C. (Olson & Rodman, 1986, June 18), and by regional cooperatives in the midwest. Burnside (1987) suggested that those recruiters

planning to attend a teacher fair make reservations early and, if necessary, allow themselves to be placed on a waiting list for space. Jensen (1987) wrote of "regional recruitment conventions" (p. 17). Although this recruitment technique is relatively new, it has gained widespread acceptance.

Relying upon professional contacts within the state. Nall (1982) found this reliance upon in-state contacts to be of moderate use and importance in the Iowa districts he surveyed. Young and Elliott (1986) in a discussion of teacher recruitment practices in Winnipeg, wrote of teacher recruitment confined to the province of Manitoba. The Maryland State Department of Education (1986) recommended greater use of instate contacts and increased hiring of graduates of instate teacher education programs.

Using professional contacts outside the state. The use of professional contacts outside Iowa was found to be of little use or importance by Nall (1982). The Maryland State Department of Education (1986) reported that Maryland schools relied on out of state sources for most new hires. Burnside (1987) described the intensive out of state recruiting conducted by a California district. Wise et al. (1987) wrote that Rochester, New York; Montgomery County, Maryland; and Hillsborough County, Florida conducted extensive out of state recruitment programs. Olson and

Rodman (1986, June 18) reported extensive recruiting conducted by school districts throughout the nation.

Recruiting internationally. International recruitment of teachers has caught the attention of popular periodicals. Bowen (1985) wrote of the state of Georgia's recruitment of science and math teachers in Germany. Wolff and Glaser (1986) gave suggestions for international recruitment and for orientation of the new recruits to life in the United States. Olson and Rodman (1986, June 18) wrote of international recruitment, stating that New York City had recruited in Spain and Puerto Rico, and that a number of California systems were recruiting in Canada and Germany. While not widespread and not without pitfalls, international recruitment has become an option in a number of school districts.

Distributing imprinted memorabilia to potential applicants. Olson and Rodman (1986, June 18) described the use of token gifts, imprinted with the district's name, as a teacher recruitment device. The provision of free meals at recruitment fairs, coupled with distribution of imprinted tote bags, has been successfully used by some Maryland school districts. Atlanta has distributed advertising pens, memo pads, and small telephone directories, emblazoned with the district's name. "We thought [that] would be in front of teachers all of the time, just hoping that,

psychologically, glancing at them would keep the Atlanta public schools in their minds" (p. 12) an Atlanta recruiter was quoted as stating.

Using recruitment posters or brochures which feature postal inquiry cards. Recruitment literature, whether posters for bulletin board display, or brochures for distribution to potential applicants, could include for use a postal reply card to request either an application or additional information, a simple and logical addition to the recruitment process. The researcher has observed this technique in use by Ithaca, New York; Jefferson County, Kentucky; and Greenville, South Carolina. LoPresto (1986) wrote that a pocket in the recruitment brochure could easily accommodate an insert. A postal inquiry/reply card could be a productive insert. Nall (1982) wrote, "It would seem that at least a request for an application could easily be designed into the initial recruitment brochure" (p. 11). Systems conducting widespread recruitment campaigns might find this to be a practical and relatively inexpensive program component.

Financial Incentive Teacher Recruitment Practices

Financial incentive teacher recruitment practices are those teacher recruitment techniques which offer a monetary appeal to encourage prospects to apply. Inducements include money channeled directly to the teacher, including salary

increases or bonuses, or funds which remove what might otherwise be an economic deterrent to recruitment, for example, reimbursement of moving costs. Economic inducements have not been listed as a separate category of recruitment practices, according to the review of literature. However, through the review of literature, a number of recruitment practices with a monetary base were identified, thus, the category seemed justified. A number of specific monetary inducements were identified by Darling-Hammond (1984), Van Meter (1984), Castetter (1986), Edelfelt (1986), Olson and Rodman (1986, June 18), Jacobson (1986/1987), Burnside (1987), Jensen (1987), Power (1987), and Wise et al. (1987). Viadero (1990) reported that a combination of economic incentives had effectively eliminated the teacher shortage in Connecticut. A discussion of financial or economic incentive teacher recruitment practices is presented in the following paragraphs.

Paying a bonus to new recruits. Paying a bonus to new recruits was among the options suggested for consideration by Van Meter (1984), Olson and Rodman (1986, June 18), Jensen (1987), and Wise et al. (1987). Van Meter (1984) suggested that, if state laws permit, new recruits should be paid a bonus upon signing, as has often occurred in professional sports. Jensen (1987) wrote, "In some states, both inner-city and rural districts attract applicants by

promising benefits ranging from bonuses . . ." (p. 17). A variant of this approach, suggested by Van Meter (1984) would be a bonus paid at the end of the first year.

Offering credit discounts to new recruits, with community support. Olson and Rodman (1986, June 18) wrote of the "aggressive teacher recruitment program" (p. 12) in Prince George's County, Maryland. Among the inducements offered to newly recruited teachers was exemption from credit card fees. Other systems have expressed interest in this approach. Jensen (1987) reported that some districts were offering "low-interest loans" (p. 19) to new teachers, with the cooperation of the community. While not yet widespread, this approach has met with some success and has attracted inquiries from other districts.

Offering rent reduction to new recruits, with community support. With support from local business and industry, some districts have appealed to candidates with the offer of reduced rent for a given period of time. Olson and Rodman (1986, June 18) stated that Prince George's County, Maryland included among its financial lures the offer of a month's free rent. Jensen (1987) wrote of the offer of rent subsidies made by some school systems. Again, this technique has attracted interested inquiries from other systems.

Offering reimbursement for moving costs, with community support. Olson and Rodman (1986, June 18) reported that the payment of recruits' moving costs was among support systems of concern to school systems. Jensen (1987) wrote that some districts were offering "reduced household moving costs" (p. 19). Wise et al. (1987) wrote, "School districts should . . . be prepared to provide travel and moving expenses" (p. 81). Although this service has occasionally been provided to school executives, its application to classroom teachers could be regarded as innovative.

Providing other relocation assistance, with community support. A number of systems have enlisted the aid of local businesses when helping new teachers relocate to the area. Olson and Rodman (1986, June 18) wrote that employment assistance has been provided to spouses of teachers and that a real estate agency and a savings and loan firm have provided other valuable information to recruits in Fresno. Burnside (1987) wrote that her California system routinely would:

> Mail a welcome brochure, provide a list of residents who have volunteered to put up new teachers for a night or two and, in cases of dire need, we can make cash advances. Finally, we try to place new teachers in schools where there already are people from their home state. (p. 41)

Providing or accelerating sabbatical leave. Van Meter (1984) suggested that school systems accelerate sabbatical leave to make it available to teachers after a shorter period of service, possibly within 5 years of initial employment. Jensen (1987) wrote that some school districts, "reasoning that gifted teachers value professional growth, offer . . . accelerated sabbaticals" (p. 19). This technique would seem to be attractive to the candidate with an interest in continued education and professional development.

Providing tuition reimbursement for graduate school. Van Meter (1984) suggested that districts offer new recruits payment for advanced courses, at least for the first few years of employment. Burnside (1987) wrote of her district's "free in-district university program to qualify candidates for permanent credentials [state certification] and state tests" (p. 29). Jensen (1987) reported that some districts were offering graduate tuition reimbursement.

Removing limits on or increasing amount of transferrable experience. Wise et al. (1987) expressed concern that state and local policies can hinder the recruitment process with mandated limits on transferrable experience. A end to "arbitrary limits on salary schedule placement" (p. 81) was suggested. Jensen (1987) wrote that some systems were "increasing the number of years of

experience that can be" (p. 18) transferred to the new system's salary schedule. Olson and Rodman (1986, June 18) reported that Fresno, California had "done away with any limit on transferring years of experience" (p. 11) and that Los Angeles had increased the number of transferrable years for teachers of shortage areas. Wise et al. (1987) wrote that East Williston, New York had no limits on transferred experience, while hiring only experienced teachers through a rigorous selection process. Mesa, Arizona's recruitment efforts were believed to be hampered by its state mandated limits on transferrable experience.

Increasing salary offered beginning teachers. Increasing the salary offered to beginning teachers in order to attract applicants and subsequently, new teachers, was suggested by a number of writers. Darling-Hammond (1984) suggested salary increases to bring teacher salaries in line with those paid neophytes in professions with similar entry requirements. Jacobson (1986/1987) found that districts that increased beginning salary were able to recruit teachers with more qualifications. Power (1987) wrote of salary increases of the magnitude suggested by Darling-Hammond in Connecticut, some Virginia systems, and other areas. Readers of The American School Board Journal chose raising teacher salaries as the most effective appeal to potential applicants. Olson and Rodman (1986, June 18) mentioned that some systems were increasing salaries and

others were struggling to find funds to use for salary increases. Clearly, increasing salary for beginning teachers was viewed as an effective means to attract applicants.

Increasing salaries across the board. Increasing salaries across the board was viewed as an attractive recruitment device because it appeals to both beginning and experienced teachers. Darling-Hammond (1984) suggested annual salaries of approximately $50,000 for experienced career teachers. Wise et al. (1987) wrote that teaching needs to offer competitive salaries to attract quality personnel. Jacobson (1986/1987) stated that experienced teachers were influenced by the size of the salary increase. This statement would seem to be supported by Power's (1987) account of a Reston, Virginia teacher who postponed retirement due to a large salary increase. School systems concerned with attracting and retaining teachers should consider across the board salary increases as recruitment and retention devices.

Offering a merit pay plan to attract teachers. Merit pay for the most able teachers has been proposed as a means of attracting teachers. Castetter (1986) wrote, "National self-examination of education increased the interest of policy makers, politicians, the public, and educators in merit pay as one approach to attract and retain the most

able teachers" (p. 453). Berry and Ginsberg (1990) reported that merit pay plans were studied in 90% of the 50 states during the mid-1980s. They concluded:

> The implementation of 1980s-style merit pay and career ladder systems has been fraught with numerous technical and political problems that have limited the effectiveness of these reforms and left many unanswered questions about their impact on attracting, rewarding, and retaining talented teachers for the public schools (pp. 616-617).

Offering fellowships, scholarships, internships, and work-study plans. Olson and Rodman (1986, June 18) reported that "scholarship and loan programs for prospective teachers also abound, but they have had mixed success" (p. 12). Jensen (1987) stated that some systems were attempting to promote /inculcate a love of teaching among their student body, hoping to reap the benefits through graduates of scholarship programs later. Edelfelt (1986) suggested recruiting in local secondary schools and colleges with guaranteed salaries for two years after certification. Forgivable loans or scholarships to students working toward certification in shortage areas was selected by 14% of the respondents to an American School Board Journal survey as the best way to improve teacher recruitment (Finding: Higher Salaries, 1985).

Paying bonuses for teachers recruited for specific subject areas. Some subject areas have been beset by widespread shortages of qualified teachers. Often mentioned as specific shortage areas have been science, math, and special education teachers. In 1984, Van Meter suggested that school districts supplement the local salary schedule in order to attract teachers in subject areas experiencing shortages. Olson and Rodman (1986, June 18), and Jensen (1987) wrote of district bonuses to attract teachers in shortage areas. Schmidt (1990) reported that Houston, which pays a $2,500 supplement to bilingual teachers, "often loses teachers to California, where districts pay an annual supplement that is $2,500 higher than Houston's" (p. 19).

Summary

Teacher supply and demand, teacher recruitment, and specific teacher recruitment practices were the topics of the literature review. The history and current views of teacher supply and demand were explored. Teacher recruitment and its principles were reviewed and current teacher recruitment practices were described.

Teacher supply and demand were found to be cyclical in nature, with a history of fluctuations from boom to bust in both supply and demand. The quality of those attracted to teaching was found to be closely related to the comparability of salaries for teachers to salaries for beginners in other fields.

Projections of teacher shortage were found to conflict. This conflict appeared to be based in the definition of teacher. If every individual with a bachelor's degree was included in the teacher pool, no shortage was found. If only new graduates were considered, a shortfall existed. Recent figures indicated an upsurge of interest in teaching among college students and among career changing adults. Some writers believed that the number of newcomers to education careers would not be adequate to meet demand (Grissmer & Kirby, 1987, Haggstrom, Darling-Hammond & Grissmer, 1988, Watts, 1986, & Weaver, 1983).

A number of indicators of whether a teacher shortage exists were suggested. A real increase in teacher salaries was regarded as the most telling indicator (Weaver, 1983). As teacher salary increases have exceeded inflation in the late 1980s, ("Most Refreshing Consensus", 1989), the conclusion that a teacher shortage has existed could be justified.

Teacher recruitment principles were outlined by a number of writers including Bolton (1973), Harris, McIntyre, Littleton, and Long (1985), and Castetter (1986). Recruitment was regarded as vital, intended to attract quality applicants to the local district. Concern was expressed by Harris, McIntyre, Littleton, and Long (1985) and by Wise et al., (1987) that districts were content to wait for applicants to seek them out, rather than

aggressively seeking outstanding teachers. Districts experiencing shortages were most likely to experiment with innovative recruitment techniques. Concern was expressed by Castetter (1986) and Watson (1980) that few districts were systematically evaluating the effectiveness of the recruitment program and that records were not being kept to permit analysis of the productivity of each recruitment activity. Teacher recruiters were urged to study industrial recruitment packages and to consider adopting them.

Burnside (1987), Chapman and Green (1986), Kean (1986), McManus and Matthews (1986), and Rydell, Gage and Colnes (1986) expressed concern that recruitment programs shared a general weakness. Recruitment programs failed to address those factors which impelled individuals to choose a teaching career. It was suggested that recruitment programs incorporate such elements as a service orientation and descriptions of favorite teachers.

Specific teacher recruitment practices were identified and categorized. The categories used were internal, external, and financial incentive teacher recruitment practices. Internal recruitment practices, those designed to be used or completed within the district or to appeal to current employees, totaled 10. External recruitment practices included techniques designed to attract applications from outside the district. The number of external teacher recruitment practices identified was 21.

Financial incentive or economic incentive teacher recruitment practices were those intended to deliver more money to the recruit, through perhaps tuition assistance, higher salary or bonuses, or those intended to remove a monetary obstacle to recruitment, perhaps reimbursing moving costs. Thirteen financial incentive teacher recruitment practices were identified. Innovative teacher recruitment practices borrowed from the advertising world and from professional sports were among those identified.

The impact of these non-traditional teacher recruitment practices has yet to be subjected to analysis or measurement. Neither have more traditional teacher recruitment practices been the subject of analysis. The literature indicated a need for further investigation of teacher recruitment, recruitment practices in use, and the effectiveness of various teacher recruitment practices for selected school districts.

CHAPTER 3

Methods and Procedures

Introduction

The purpose of this study was to identify teacher recruitment practices used in large and small public school systems in six southeastern states and to determine the reported adequacy of teacher supply in the selected school districts. A questionnaire developed by Roger L. Nall (1982) was revised based upon the review of literature and was then used to obtain the necessary data. Statistical tests were used to analyze the data in this descriptive study. A description and a summary of methods and procedures used follow.

Population

The population for this study consisted of all large and small public school districts in six southeastern states, Florida, Georgia, North Carolina, South Carolina, Tennessee, and Virginia. The review of literature identified large urban and small rural school districts as those most likely to experience teacher shortage conditions. Lists of large school districts, those enrolling 10,000 or more students, and small school districts, those enrolling fewer than 2,500 students, were readily available in Paterson's Guide to American Education (Moody, 1989). Large school districts are usually urban in nature and small

school districts are usually rural in nature but exceptions surely exist. Therefore, school district officials responding to the survey were asked to report if the district was located within a Metropolitan Statistical Area (MSA) and thus, primarily urban, or outside a MSA, and thus, primarily rural.

Sample

Large and small school districts were listed for each of the six states. Due to the small number of school districts within each state, 100% of the large school districts and 100% of the small school districts were included in the survey.

The total population was narrowed to 133 large school districts and 229 small school districts. Thus, all of the large and all of the small school districts in the six states were mailed questionnaires.

Of the mailed questionnaires, 182 (50.27%) were returned. None of the returned questionnaires were invalid. Thus, the data from 182 questionnaires were subjected to analysis.

Instrumentation

The data for the study were collected using a questionnaire developed by Roger L. Nall (1982). The instrument was revised after the review of literature to reflect trends and new developments in teacher recruitment

practices. Nall, when describing the instrument he devised, wrote that "an administrator instrument was designed to measure attitudes, commitment, and recruitment activities used by district administrators" (p. 22). The instrument appeared to have been based upon Nall's review of literature related to teacher recruitment. Neither descriptions of field testing nor reports of validity were given. The item, local newspaper advertising, included by Nall, was excluded in this survey in order to avoid confusion with instate metropolitan newspaper advertising, which could have been local. Some other additions, deletions, and changes in wording were made. The survey instrument included 10 internal, 20 external, and 13 financial incentive teacher recruitment practices. The category of financial incentives was added by the researcher.

Pilot Study

The revised instrument's content validity was established through a pilot study conducted in the state of Tennessee. Borg and Gall (1983) noted that "researchers sometimes use measures of low or unknown validity because no better measures are available" (p. 275). Borg and Gall described a method to determine the content validity of an instrument through the use of expert ratings of relevance and through field testing. The pilot study offered practicing recruitment officers the opportunity to evaluate each item and to suggest revisions. Medium sized public

school districts in Tennessee, those enrolling 2,500-10,000 students, were selected. Seventy-five school districts were identified. The 75 selected school districts were mailed the instrument and asked to evaluate each item for clarity and relevance. After two weeks, the data were analyzed by the researcher. There was a 36% return. Helpful suggestions for improvement were offered. Relevance for each item was rated acceptable by 74% or more of respondents. Clarity for each teacher recruitment strategy listed was rated acceptable by 90.3% or more of respondents.

The major changes from the field study questionnaire to that used for the survey were changes in format. Several field study respondents commented about excessive length and one respondent returned the questionnaire uncompleted, noting that the instrument was "just too long and required too much reading." The order of questions was changed and questions requiring specific information about local enrollment, staff, and budget were moved from near the beginning to near the end of the instrument. The revised instrument was professionally printed to feature 4 full pages of questions on a single 8 1/2" by 11" sheet in the form of a leaflet. Response rate for the field study was 36% for schools and 40% for those nominated to serve as experts. Wording for some items was revised for clarity, consistency, or to permit respondents to provide reasonable approximations rather than precise statistics, as

respondents had noted some statistics were difficult to retrieve. The questionnaire was rated acceptable. Several respondents stated it was too long.

For validation purposes, the field testing included an evaluation conducted by a panel of experts in the field of teacher recruitment. Dan Emmel, office of Career Development of East Tennessee State University, and Betty Bentley of the Gwinnett County, Georgia, public schools, agreed to serve and nominated other individuals to read and evaluate the questionnaire. the other panel members were: Doris Webber of Oak Ridge, Tennessee, Connie Davis of Appling, Georgia, and Bobby Stephens of Decatur, Georgia. Panel members found the instrument to be acceptable in terms of relevance and clarity.

Thus, the pilot study improved the clarity of the instrument.

Design

Borg and Gall (1983) wrote, "the causal-comparative method is an accepted research technique for exploring causal relationships among variables that cannot be manipulated experimentally. The causal-comparative method involves comparing samples that are different on a critical variable but otherwise comparable" (p. 530). This study was designed to determine if large and small or urban and rural school districts were experiencing teacher shortage conditions, and if these districts were using a variety of

teacher recruitment techniques. Do measurable relationships exist among such variables as district size, district location, teacher shortage conditions, and the number and type of teacher recruitment techniques used?

Data Collection

After permission was granted by the Institutional Review Board at East Tennessee State University, a packet was mailed to each selected school district. Each packet contained a cover letter assuring participants that individual names would not be revealed in the study, a coded questionnaire, and a stamped, addressed reply envelope.

Participants reported the use and importance of teacher recruitment techniques within the district. Use of recruitment techniques was indicated by a yes or no response. Importance of recruitment techniques was ranked using a scale of (1) no importance, (2) limited importance, (3) average importance, (4) above average importance, and (5) great importance. The three categories of teacher recruitment practices selected from the review of literature were (a) internal, (b) external, and (c) financial incentive.

The data were collected from late summer to fall, 1991. At the end of the data collection period, 50.27% of the questionnaires had been completed and returned. The collected data were analyzed by the researcher, using the SPSS/PC+.

Reliability of Pilot and Actual Study Instruments

Due to the size of the sample during the pilot study, reliability coefficients could not be determined. Reliability coefficients were computed for related sections of the survey instrument rather than for the entire instrument because of inadequate computer memory.

Reliability for the 43 questions related to use of various teacher recruitment practices, questions 1-86, odd numbered questions only, was computed. Alpha reliability coefficients for the 43 use questions was .8480 with a standardized item alpha of .8451. Reliability coefficients were extracted for each block of related use questions, including internal, external, and financial incentive. For the 10 internal recruitment practices use questions, the alpha reliability coefficient was .6403, with a standardized item alpha of .6381. For the 20 external teacher recruitment practices use questions, the alpha reliability coefficients was .7762, with a standardized item alpha of .7793. For the 13 financial incentive teacher recruitment practices use questions, the alpha reliability coefficient was .5793, with a standardized item alpha of .5748.

Reliability for the 43 questions related to the importance of various teacher recruitment practices questions 1-86, even-numbered questions only, was calculated. The alpha reliability coefficients for these questions was .9526 with a standardized item alpha of .9534.

The alpha reliability coefficient for the 10 internal teacher recruitment practices importance was .8239 with a standardized item alpha of .8252. The alpha reliability coefficients for the 20 external teacher recruitment practices importance was .9112 and the standardized item alpha was .9123. Reliability coefficients for the 13 financial incentives teacher recruitment practices importance displayed an alpha of .9146 and a standardized item alpha of .9183.

Reliability for questions 87-107, specific local experience with subject-areas of teacher shortage, was computed. The alpha reliability coefficients for the areas of teacher shortage questions was .6727 and the standardized item alpha was .6461.

Reliability coefficients were not computed for the remaining items questions 108-122. These items requested specific demographic and financial data and a listing of the 5 recruitment practices the district found most effective. As could be anticipated, answers varied widely.

Data Analysis

The hypotheses were stated in the null format in Chapter 1 and were tested in the null format. Data were analyzed by the researcher using the Statistical Package for the Social Sciences PC+ version.

The *t*-test for differences between means was used to analyze the data for Hypotheses 1, 2, 4, 6, 12, 13, 15, 17,

23, 24, 26, 28, 30, and 33-35. The primary assumptions of this test are (a) interval level data, (b) normal distribution, and (c) equal score variances. Borg and Gall (1983) wrote "these tests provide accurate estimates of statistical significance even under conditions of substantial violation of the assumptions" (p. 544).

Non-parametric statistical tests used to analyze data were the chi-square and the Kolmogorov-Smirnov two sample test. Chi-square "is used when the research data are in the form of frequency counts" (Borg & Gall, 1983, p. 559). The chi-square test was used to analyze data for hypotheses 3, 5, 7, 8, 14, 16, 18, 19, 23, 25, 27, and 29. The Kolmogorov-Smirnov tests "whether two samples come from populations with the same distributions" (Norusis, 1988, p. B-185) and requires ordinal level data. The Kolmolgorov-Smirnov two-sample test was used for hypotheses 9-11, 20-22, and 30-32.

A .05 level of confidence was used to determine the level of significance. The data were derived from the 50.27% return of mailed questionnaires. Only 182 valid questionnaires were analyzed.

Data were analyzed by the researcher and arranged in tabular form for presentation in Chapter 4.

Summary

This chapter included the methods and procedures used in this descriptive study. The instrument, devised by Roger

L. Nall (1982) and revised by the researcher after a review of the literature, was validated through a pilot study and review by a panel of experts. It was then used to obtain information from selected large and small public school districts in six southeastern states concerning teacher supply and demand and teacher recruitment practices. When an adequate return was received, the data were analyzed. The statistical tests used included the *t*-test for differences between means, the chi-square test, and the Kolmogorov-Smirnov two sample test.

CHAPTER 4

Analysis of Data

The problems addressed by this study were determination of whether or not the school systems included in the sample were experiencing teacher shortage conditions and the strategies employed by these school systems to recruit teachers. Further analysis was done to determine whether differences existed among respondents on the basis of three dichotomous variables by which respondents could be grouped. These were: district size, large or small, which was the basis for selection for inclusion in the study; district location, rural or urban; and district experience with teacher supply conditions, experiencing either shortage conditions or no shortage. The use and importance of specific teacher recruitment practices and specific endorsement areas of teacher shortage were examined in relationship to the three dichotomous variables.

Pre-Analysis Preparation of Data

Data were obtained from a questionnaire completed by representatives of large and small school districts in six southeastern states. A return rate of 50.27% was obtained from 182 completed questionnaires. Data presented in Table 1 display the number of responses per state and the percent of responses per state is compared to the percent of districts surveyed located in each state.

Table 1

Number of Respondents per State and Comparison of Percent Responding to Percent Surveyed by State

State	Number of Respondents per State	% of N Surveyed Located in State	% of n Responding Located in State	% n Compared to % N
Florida	21	12.4%	11.5%	-0.9%
Georgia	37	24.3%	20.3%	-4.0%
North Carolina	30	16.3%	16.5%	+0.2%
South Carolina	32	14.3%	17.6%	+3.3%
Tennessee	19	14.1%	10.4%	-3.7%
Virginia	43	18.5%	23.6%	+5.1%

N = 362; n = 182

Responses were first visually examined. Data were recorded into a SPSS/PC+ file by the researcher. Responses to questions 118-122 which requested the respondent to list the 5 most effective teacher recruitment practices were combined and a list of 36 practices cited by 2 or more school districts was developed.

Analysis and Interpretation of Findings

Thirty-five null hypotheses were tested in the study. Hypotheses 1, 2, 4, 6, 12, 13, 15, 17, 23, 24, 26, 28, and 33-35 were tested at the .05 significance level using the *t*-test for differences between means. Hypotheses 3, 5, 7, 8, 14, 16, 18, 19, 23, 25, 27, and 29 were tested using the chi-square, with the phi-value reported in order that the score have a standard appearance, and the Pearson chi-square probability reported in tabular form for these. Hypotheses 9, 10, 11, 20, 21, 22, 30, 31, and 32 were tested using the Komolgorov-Smirnov 2-sample test. When significant differences were found using the Komolgorov-Smirnov, the chi-square was used to determine the direction of the difference.

$H_0$1 There will be no significant difference between large and small school districts in the per pupil expenditure for teacher recruitment.

A per pupil teacher recruitment budget was calculated by dividing the reported teacher recruitment budget by total enrollment. A per pupil teacher recruitment budget greater than zero was calculated for 108 districts or 63.9% of the 169 respondents who completed the item. A recruitment budget of $0 was reported by 61 respondents. The item was not completed by the remaining 13 respondents. The per pupil teacher recruitment budget calculated ranged from $0.00 to $96.77 for the 169 reporting school districts.

The F-value was 333.35, with a probability of less than .05, indicating the variances were significantly different. The separate variance estimate was used. $H_0$1 was retained, with a t-value of 1.53 and a 2-tailed probability of .130. Data are presented in Table 2.

$H_0$2 There will be no significant difference between large and small school districts in the total number of financial incentive teacher recruitment practices used.

The number of financial incentive teacher recruitment practices used per school district was determined. The t-test was used to determine if a significant difference could be found between large and small school districts.

Table 2

Per Pupil Teacher Recruitment Budget For Large and Small School Districts

Group	Number of Cases	Mean	t-Value	2-tailed Probability
Small	103	2.0521	1.53	.130
Large	66	.5162		

d.f. = 102.95

The separate variance estimate was used because the F-value had a probability of less than .05, indicating that the variances were statistically unequal. The t-value was -3.92 and the two-tailed probability was .0001, thus the null hypothesis was rejected. Results are presented in Table 3.

$H_0$3 There will be no significant difference between large and small school districts in the use of specific financial incentive teacher recruitment practices.

The use of specific financial incentive teacher recruitment techniques was tested at the .05 level of significance using the chi-square. Thirteen specific financial incentives were examined individually to determine

Table 3

Use of Financial Incentives in Teacher Recruitment in Small and Large School District

Group	Number of Cases	Mean	t-Value	2-tailed Probability
Small	108	2.3241	-3.92	.0001
Large	74	3.5270		

d.f. = 133.70

if significant differences existed between large and small school districts in the use of these. Significance was found for 8 of the items. The use of interest breaks for new teachers yielded a phi value of .19936 and approximate significance of .00716. The use of rent subsidies produced a phi-value of .18110 and an approximate significance of .01456. Reimbursed moving costs yielded a phi-value of .18290 and an approximate significance of .01387. Other relocation assistance yielded a phi-value of .15525 and an approximate significance of .03673. The provision of sabbatical leave yielded a phi-value of .24439 and an approximate significance of .00101. Increased salary for new teachers was reported by 28% of small districts and 47.3% of large districts, yielding a phi value of .19737 and an approximate significance of .00792. Increased salary for all teachers produced a phi-value of .22973 and an approximate significance of .00194. The use of internships, scholarships, and similar agreements yielded a phi-value of .18805 and an approximate significance of .00141. The use of new recruits bonuses, shortage bonuses, merit pay, reimbursing graduate tuition, and increasing transferrable experience yielded phi-values that were not found to be significant at the .05 level. Results are shown in Table 4. The null hypothesis was rejected for 8 of the 13 financial incentive teacher recruitment practices and was retained for 5 of the 13.

Table 4

Use of Specific Financial Incentives in Small and Large School Districts

Financial Incentive	% Small Using	% Large Using	n using/ % of Total N	Phi Value	Approximate Significance*
New Recruits Bonus	.9	1.4	2/1.1	.02004	.78684
Interest Break New Teachers	3.7	14.9	15/8.2	.19936	.00716
Rent Subsidy	0.0	5.4	4/2.2	.18110	.01456
Reimbursed Moving Costs	.9	8.1	7/3.9	.18290	.01387
Other Relocation Assistance	20.4	34.2	47/26.0	.15525	.03673
Sabbatical Leave	16.7	38.4	46/25.4	.24439	.00101
Reimburse Graduate Tuition	49.5	43.8	85/47.2	.05603	.45220
Increase Transfer-rable Experience	17.8	28.4	40/22.1	.12585	.09043
Increase Salary for New	28.0	47.3	65/35.9	.19737	.00792

Table 4 (Cont'd)

Use of Specific Financial Incentives in Small and Large School Districts

Financial Incentive	% Small Using	% Large Using	n using/ % of Total N	Phi Value	Approximate Significance*
Increase Salary for All	50.0	73.0	108/59.3	.22973	.00194
Merit Pay Etc.	24.1	31.1	49/26.9	.07760	.29518
Internships Scholar-ships, Etc.	9.3	23.0	27/14.9	.18805	.01141
Shortage Bonus	12.1	5.4	17/9.4	.11365	.12625

*Pearson chi-square probability

d.f. = 1

$H_0$4 There will be no significant difference between large and small school districts in the total number of internal teacher recruitment practices used.

The number of internal teacher recruitment practices used in each district was totaled. The t-test was used to determine if a significant difference existed. The pooled variance estimate was used because the F-value had a probability >05, indicating that the variances were

statistically equal. With a t-value of -2.92 and a two-tailed probability of .004, the null hypothesis was rejected.

Data are presented in Table 5.

$H_0$5 There will be no significant difference between large and small school districts in the use of specific internal teacher recruitment techniques.

The use of specific internal teacher recruitment practices in small and large school districts was analyzed using the chi-square at the .05 level of significance. Of the 10 internal or in-district teacher recruitment techniques, a significant difference between small and large school districts was found for 6 items. Brought for visit, meaning bringing the prospective teacher into the district

Table 5

Use of Internal Teacher Recruitment Practices in Small and Large School Districts

Group	Number of Cases	Mean	t-Value	2-tailed Probability
Small	108	5.6204	-2.92	.004
Large	74	6.5541		

*d.f. = 180

for a visit, was used more often by small school districts and was significant at .01928, with a phi-value of .17394. Posting vacancies in the district was also used more often by small school districts, yielded a phi-value of .24982 and an approximate significance of .00075. The use of teachers as recruiters was cited more often by large school districts, yielding a phi-value of .20766 and an approximate significance of .00521. Descriptive brochures were used more often by large school districts, yielding a phi-value of .32064 and an approximate significance of .00002. The use of FTA (Future Teachers of America or Future Educators of America) groups was cited more often by large school districts, yielding a phi-coefficient of .41922 and an approximate significance of .000005. Developing long-range plans for teacher recruitment was cited by large school districts more frequently, yielding a phi-coefficient of .37194 and an approximate significance of .000005. The remaining four items yielded phi-values and resulting probability that were not significant at the .05 level. Assigning an individual to conduct tours yielded a phi-value of .08533 and an approximate significance of .24967. Having a current teacher add certification in a shortage area was used by 92.9% of the responding school districts, yielded a phi-value of .09928 and an approximate significance of .18406. Requesting that a current teacher recommend a prospect was used by 76.9% of the responding districts and

yielded a phi-value of .02859 and an approximate significance of .69970. Involvement of the local teachers organization in recruitment was cited by 40.3% of the districts responding, yielding a phi-value of .03577 and an approximate significance of .63036. Thus, the null hypothesis was rejected for 6 of the 10 internal teacher recruitment techniques and was retained for 4 of the 10. Results are shown in Table 6.

$H_0$6 There will be no significant difference between large and small school districts in the number of external teacher recruitment practices used.

The total number of external teacher recruitment practices used in small and large school districts was calculated by adding the yes responses in the use column, survey questions 21-60, odd-numbered items only. The t-test was used to determine significance at the .05 level. The mean for 108 small school districts was 7.9537 and that for 74 large school districts was 10.1351. The pooled variance estimate was used because the F-value was .392, indicating that the variances of the two groups did not differ significantly. With a t-value of -4.24 and 180 degrees of freedom, the 2-tailed probability was .0001. Large school districts used a significantly greater number of external teacher recruitment techniques and the null hypothesis was rejected. Results are shown in Table 7.

Table 6

Use of Specific Internal Teacher Recruitment Techniques in Small and Large School Districts

Internal Recruitment Technique	% Small Using	% Large Using	n using/ % of Total N	Phi Value	Approximate Significance*
Bought for Visit	71.0	54.1	116/64.1	.17394	.01928
Individual Tour Conductor	54.6	45.9	93/51.1	.08533	.24967
Posted in District	90.7	71.6	151/83.0	.24982	.00075
Teacher as Recruiter	27.1	47.3	64/35.4	.20766	.00521
Teacher Add Certification	90.7	95.9	169/92.9	.09928	.18046
Teacher Recommend Prospect	75.9	78.4	140/76.9	.02859	.69970
Education Association Increment	38.9	42.5	73/40.3	.03577	.63036
Descriptive Brochure	65.7	93.2	140/76.9	.32064	.00002
FTA	18.7	59.5	64/35.4	.41922	.000005
Long-Range Plans	29.9	67.6	82/45.3	.37194	.000005

*Pearson Chi-square probability

d.f = 1

Table 7

Use of External Teacher Recruitment Practices in Small and Large School Districts

Group	Number of Cases	Mean	t-Value	2-tailed Probability
Small	108	7.9537	-4.24	.0001
Large	74	10.1351		

d.f. = 180

$H_0$7 There will be no significant difference between large and small school districts in the use of specific external teacher recruitment techniques.

Comparison of the use of specific external teacher recruitment techniques in small and large school districts was made using the chi-square at the .05 level of significance. Of the 20 external teacher recruitment techniques included in the study, significant differences were found between large and small school districts in the use of 11. The use of instate metropolitan newspaper advertising was found to be common in most districts, used by 106 districts, 58.6% of the total responding, yielding a phi-value of .05141 and an approximate significance of .48917. The use of out of state metropolitan newspaper

advertising was found to be more common in large school districts, yielding a phi-value of .14800 and an approximate significance of .04587. The use of trade journal advertising was also more common among large school districts, yielding a phi-value of .31836 and an approximate significance of .00002. The use of television and video advertising was relatively rare, reported by only 12.6% of the responding districts, but was more common among large school districts, yielding a phi-value of .29115 and an approximate significance of .00009. Radio advertising was seldom used by teacher recruiters, cited by only 4.4% of all respondents, yielding a phi-value of .01379 and an approximate significance of .85240.

The use of a variety of professional contacts outside the school district was examined. Maintaining contact with instate college placement offices was common among both small and large school districts, with 89.6% of the respondents citing this item. A phi-value of .13628 and an approximate significance of .06599 was produced by analysis. Contact with out of state college and university placement offices was more common among large school districts, cited by 77.0% of them and by only 46.3% of small school districts. A phi-value of .30667 was produced, with an approximate significance of .00004. Small school districts were more likely to use contacts with other school districts; this was cited by 88.9% of small districts and

only 78.4% of large districts, yielding a phi-value of .14309 and an approximate significance Of .05356. Contacting the State Department of Education was cited by 73.1% of the small districts and by 67.6% of the large, yielding a phi-value of .06034 and an approximate significance of .41566. Posting vacancies in the community was also more common in small school districts, cited by 67.6% of these while only 56.8% of the large districts reported this practice, yielding a phi-value of .11036 and an approximate significance of .13654. The use of multidistrict coalitions for teacher recruitment purposes was noted by 19.4% of the small districts and by 30.1% of the large districts, producing a phi-value of .12325 and an approximate significance of .09729. Soliciting applications from certificated nonpracticing prospects was cited by 46.3% of the small districts responding and by 54.1% of the large districts responding, yielding a phi-value of .07622 and an approximate significance of .30385.

Some external teacher recruitment techniques took recruiters out of the district or simplified contact with the district for prospective teachers or increased the attractiveness of the district for the prospect. Campus visits were made by 71.3% of the small districts and by 95.9% of the large districts, yielding a phi-value of .31065 and an approximate significance of .00003. The use of consultants for teacher recruitment was reported by 1.9% of

the small districts and by 10.8% of the large districts, producing a phi-value of .19312 and an approximate significance of .00918. Job fairs were frequented by representatives of 62.0% of the small districts and by 89.2% of the large districts, yielding a phi-value of .30068 and an approximate significance of .00005. International recruitment, that is, recruiting for teachers in other countries, was cited by 5.6% of the small districts and by 10.8% of the large districts responding, yielding a phi-value of .09687 and an approximate significance of .19125. A total of 14 of the 182 responding districts reported recruiting internationally. The use of imprinted memorabilia was reported by 13.0% of the small districts and by 54.8% of the large districts, yielding a phi-value of .44852 and an approximate significance of .000001. The use of recruitment posters with attached postal reply inquiry cards was cited by 14.8% of the small districts and by 28.4% of the large districts, for a total number of 37 or 20.3%, yielding a phi-value of .16555 and an approximate significance of .02553.

The use of instate and out of state contacts was compared. Generally, small school districts reported a greater reliance upon instate contacts, with 77.6% of the small districts and 59.5% of the large districts reporting reliance upon instate contacts. A phi-value of .19460 was found, with an approximate significance of .00884. The use

of out of state contacts was found to be greater in large school districts, with 33.8% of the large districts citing general reliance upon out of state contacts, while only 15.9% of small school districts reporting this reliance. A phi-value of .20842 and an approximate significance of .00505 were found.

Thus, of the 20 external teacher recruitment practices surveyed, small and large school districts were found to differ significantly and the null hypothesis was rejected for 11: out of state metropolitan newspaper advertising; trade journal advertising; television and video advertising; out of state college and university placement offices; campus visits; use of recruitment consultants; job fairs; use of imprinted memorabilia; use of poster with reply card; use of instate contacts; and use of out of state contacts. The null hypothesis was retained for 9 of the 20 external teacher recruitment techniques surveyed. These were: instate metropolitan newspaper advertising; radio advertising; contact with instate college and university placement offices; contact with other school districts; contact with the State Department of Education; posting vacancies in the community; use of a multidistrict coalition; and recruiting internationally. Results are shown in Table 8.

Table 8

Use of Specific External Teacher Recruitment Techniques in Small and Large School Districts

Recruitment Technique	% Small Using	% Large Using	n using/ % of Total N	Phi Value	Approximate Significance*
Instate Metropolitan Newspaper Ad	56.5	61.6	106/58.6	.05141	.48917
Out of State Metropolitan Newspaper Ad	24.1	37.8	54/29.7	.14800	.04587
Trade Journal Ad	16.7	45.9	52/28.6	.31836	.00002
Television and Video Ad	4.6	24.3	23/12.6	.29115	.00009
Radio Ad	4.6	4.1	8/4.4	.01379	.85240
Instate College Placement Offices	86.1	94.6	163/89.6	.13628	.06599
Out of State Placement Offices	46.3	77.0	107/58.8	.30667	.00004
Other District Contacts	88.9	78.4	154/84.6	.14309	.05356
State Dept. of Education	73.1	67.6	129/70.9	.06034	.41566
Posted in Community	67.6	56.8	115/63.2	.11036	.13654

Table 8 (Cont'd)

Use of Specific External Teacher Recruitment Techniques in Small and Large School Districts

Recruitment Technique	% Small Using	% Large Using	n using/ % of Total N	Phi Value	Approximate Significance*
Multidistrict Coalition	19.4	30.1	43/23.8	.12325	.09729
Nonpracticing Prospects	46.3	54.1	90/49.5	.07622	.30385
Campus Visits	71.3	95.9	148/81.3	.31065	.00003
Consultant	1.9	10.8	10/5.5	.19312	.00918
Job Fair	62.0	89.2	133/73.1	.30068	.00005
International Recruiting	5.6	10.8	14/7.7	.09687	.19125
Memorabilia	13.0	54.8	54/29.8	.44852	.000001
Poster and Reply Card	14.8	28.4	37/20.3	.16555	.02553
Instate Contacts	77.6	59.5	127/70.2	.19460	.00884
Out of State Contacts	15.9	33.8	42/23.2	.20842	.00505

*Pearson chi-square probability

d.f. = 1

$H_0$8 There will be no significant difference between large and small school districts in reported subject areas of teacher shortage.

Subject areas or certification or endorsement areas of shortage were analyzed using the chi-square to determine if large and small districts were experiencing similar or significantly different teacher shortage conditions. A total of 21 areas was examined. Of these 21, significance at the .05 level was found for only 4. In the accompanying table, Table 9, areas of shortage are arranged in descending order, with those subject areas in which most districts were experiencing shortage listed first and those subject areas in which fewest districts were experiencing shortages listed last. Areas in which a significant difference was found in reported shortage conditions included special education, with 75% of the small districts and 90.5% of the large districts reporting shortages, for a total number of 148 districts, or 81.3% reporting shortages. The phi-value was .19585, with an approximate significance of .00824. Another area in which a significant difference was found between small and large school districts was the vocational trades area, with 19.4% of small districts and 35.1% of the large districts reporting shortages, yielding a phi-value of .17610 and an approximate significance of .01752. Of responding school districts, 25.8% of the total reported shortage conditions in the vocational trades area.

Table 9

Subject Areas of Teacher Shortage Cited by Small and Large School Districts

Subject Endorsement	% of Small Citing	% of Large Citing	n Citing % of Total N	Phi Value	Approximate Significance*
Special Education	75.0	90.5	148/81.3	.19585	.00824
Foreign Language	46.3	59.5	94/51.6	.12938	.08090
Counselor/ Psychologist	32.7	39.2	64/35.4	.06662	.37008
Science	29.6	40.5	62/34.1	.11308	.12711
Library Media	27.8	40.5	60/33.0	.13336	.07200
Bilingual ESL, ESOL	25.9	37.8	56/30.8	.12677	.08722
Math	28.7	29.7	53/29.1	.01109	.88104
Vocational Trades	19.4	35.1	47/25.8	.17610	.01752
Secondary 9-12	21.3	18.9	37/20.3	.02902	.69546
Middle Grades 6-8	13.9	24.3	33/18.1	.13304	.07268
Art	10.2	13.5	21/11.5	.05117	.48998
Computer Education	12.0	10.8	21/11.5	.01885	.79923
Reading	7.4	16.2	20/11.0	.13835	.06198
Other Areas	8.3	13.5	19/10.4	.08322	.26159

Table 9 (Cont'd)

Subject Areas of Teacher Shortage Cited by Small and Large School Districts

Subject Endorsement	% of Small Citing	% of Large Citing	n Citing % of Total N	Phi Value	Approximate Significance*
Music	8.3	6.8	14/7.7	.02906	.69501
English	4.6	5.4	9/4.9	.01758	.81257
Business Education	3.7	6.8	9/4.9	.06917	.35074
Primary Grades K-2	1.9	8.1	8/4.4	.14991	.04314
Physical Education	1.9	2.7	4/2.2	.02851	.70055
Elementary Grades 3-5	0.0	4.1	3/1.6	.15640	.03487
Social Studies	0.0	1.4	1/0.5	.08980	.22574

*Pearson chi-square probability

d.f. = 1

Significantly different shortage conditions were found for two other subject areas or areas of endorsement. However, the total number of districts reporting shortage conditions for these two areas was much less than the total

for special education and vocational trades. Of the small school districts responding, 1.9% reported difficulty filling positions in primary grades, kindergarten through second grade (K-2). Of large school districts responding, 8.1% reported difficulty filling positions in these grades, yielding a phi-value of .14991 and an approximate significance of .04314. Only 8, or 4.4%, of the 182 school districts responding reported K-2 shortages. The final area of significant difference was elementary grades 3-5. Again, the relative number of districts experiencing such shortage was quite small, with only 3 districts, all large, or 4.1% of the large and 1.6% of the total, reporting a shortage of elementary school teachers. The phi-value was .15640, with an approximate significance of .03487. Results are presented in Table 9.

Significant differences between small and large districts were not found for the other 17 areas of endorsement included in the survey. Several districts noted that other areas of shortage existed, with occupational therapy, physical therapy, and speech pathology being the most frequently mentioned. In some districts, speech pathology or speech therapy could have been considered special education. With significant differences found for only 4 of 21 areas, $H_0 8$ was retained.

Perhaps of more interest than the degree of difference in teacher shortage conditions is the number of districts

reporting shortages. For 10 subject areas of endorsement, shortage conditions were found in 18% or more of the reporting school districts. Shortages were found to exist in special education for 81.3% of the school districts. Teachers of foreign languages were difficult to find for 51.6% of reporting districts. Counselor and psychologist vacancies were difficult to fill for 35.4% of the respondents. Science vacancies were common to 34.1% of the respondents and vacancies in school library media were noted by 33.0%. Shortages of bilingual teachers or teachers of English as a second language or teachers of English for speakers of other languages were noted by 30.8% of the respondents. A shortage of math teachers was reported by 29.7% of respondents. A general secondary shortage, grades 9-12, was noted by 20.3% of respondents. This general shortage of secondary teachers did not extend to such areas as physical education, English, and the social sciences. Teachers for the middle grades (6-8) were noted as shortage areas by 18.1% of the respondents. Data are presented in Table 9 in decreasing order, with those endorsement areas most frequently cited as shortage areas listed first.

$H_0$9 There will be no significant difference between large and small school districts in the reported importance of specific financial incentive teacher recruitment practices.

The importance of specific financial incentive teacher recruitment practices was reported by each respondent, using a Likert type scale ranging from one to five, with one meaning of no importance and five meaning of great importance to the district. The responses were analyzed using the Komolgorov-Smirnov two sample test which assumes ordinal level data. In Table 10, the K-S Z and two-tailed probability for each item are shown. Significance at the .05 level was found for only one item, providing interest rate breaks for new teachers. The K-S Z for this item was 1.431, with a 2-tailed probability or .033. The chi-square was used to determine the direction of the difference. Of large school districts responding, 40.6% rated this item as of average, 3 on scale of 1-5, or greater importance, while only 19.8% of small districts rated this item as highly. The phi-value was .24219 and the Pearson chi-square probability was .03281. As a significant difference was found for only one of the thirteen items, the null hypothesis was retained. Data are presented in Table 10.

$H_0$10 There will be no significant difference between large and small school districts in the reported importance of specific internal teacher recruitment practices.

Responses from large and small school districts included a rating on a Likert type scale of the importance of each internal recruitment practice surveyed. Ratings or rankings ranged from one to five, with one meaning of no

Table 10

Importance of Specific Financial Incentive Teacher Recruitment Practices in Small and Large School Districts

Financial Incentive	K-S Z	2-Tailed Probability
New Recruits Bonus	.249	1.000
Interest Break New Teachers	1.431	.033
Rent Subsidy	.842	.478
Reimbursed Moving Costs	.503	.962
Other Relocation Assistance	.856	.456
Sabbatical Leave	.992	.278
Reimburse Graduate Tuition	.343	1.000
Increase Transfer Experience	1.328	.059
Increase Salary for New	1.138	.150
Increase Salary for All	.951	.326
Merit Pay	.574	.897
Internships, Scholarships	.992	.278
Shortage Area Bonus	.266	1.000

importance and five meaning of great importance. Data were analyzed using the Komolgorov-Smirnov two sample test which assumes ordinal data.

Of the ten specific internal recruitment practices surveyed, a significant difference between large and small school districts was found for three. The development and use of descriptive brochures yielded a K-S Z of 1.734 and a 2-tailed probability of .005. The chi-square was used to determine the direction of the difference, yielding a phi value of .32150 and a Pearson chi-square probability of .00094. The item was ranked as of great importance by 48.6% of large districts and by only 21.7% of small districts. Ratings of the importance of future teachers or future educators groups as a teacher recruitment technique yielded a K-S Z of 1.504 and a 2-tailed probability of .022. The chi-square was used to determine the direction of the difference, yielding a phi value of .26934 and a Pearson chi-square probability of .01208. The item was ranked of great importance by 24.3% of large districts and by only 7.8% of small districts. Ratings of the importance of the development of long-range plans for teacher recruitment yielded a K-S Z of 1.624 and a 2-tailed probability of .010. The chi-square was used to determine the direction of the difference, yielding a phi value of .30602 and a Pearson chi-square probability of .00215. The item was rated of

great importance by 29.7% of large districts and by only 10.5% of small districts.

Of the 10 internal teacher recruitment practices surveyed, a significant difference between large and small school districts was found for only three. The null hypothesis, $H_0 10$, was retained. Results are shown in Table 11.

Table 11

Importance of Specific Internal Teacher Recruitment Practices in Small and Large School Districts

Internal Recruitment Practice	K-S Z	2-Tailed Probability
Brought Prospect for Visit	1.210	.107
Assigned Individual to Conduct Tour	.450	.987
Posted in District	.895	.400
Teacher as Recruiter	1.108	.171
Teacher Add Certification	.316	1.000
Teacher Recommend Prospect	1.122	.161
Association Involvement	.460	.984
Descriptive Brochure	1.734	.005
FTA	1.504	.022
Long Range Plans	1.624	.010

$H_0$11 There will be no significant difference between large and small school districts in the reported importance of specific external teacher recruitment practices.

The importance of 20 specific external teacher recruitment practices was rated by large and small school districts responding on a Likert type scale. Ratings ranged from one to five. A rating of one meant of no importance while a rating of five meant of great importance. Data were analyzed using the Komolgorov-Smirnov two sample test which assumes ordinal level data. Of the 20 external teacher recruitment practices surveyed, a significant difference between large and small school districts was found for 7. These 7 are presented below and data for the 20 external teacher recruitment practices are presented in Table 12.

A significant difference between large and small school districts in the reported importance of trade journal advertising was found, yielding a K-S Z of 1.865 and a 2-tailed probability of .002. The chi-square was used to determine the direction of the difference. This item was rated as of average or greater importance by 58.1% of large school districts and by only 30.2% of small districts, yielding a phi value of .28798 and a Pearson chi-square probability of .00485. The null hypothesis was rejected for this item.

A significant difference between large and small school districts in the reported importance of contact with instate

Table 12

Importance of Specific External Teacher Recruitment Practices in Small and Large School Districts

External Recruitment Practice	K-S Z	2-Tailed Probability
Instate Metropolitan Newspaper Ad	.543	.930
Out of State Metropolitan Newspaper Ad	1.042	.228
Trade Journal Ad	1.865	.002
TV Video Ad	.856	.456
Radio Ad	.492	.969
Instate Placement Offices	1.632	.010
Out of State Placement Offices	2.113	.0005
Other District Contacts	.904	.387
State Department of Education Contacts	.938	.343
Posting in Community	.628	.825
Multidistrict Coalition	.877	.425
Nonpracticing Prospects	.691	.726
Campus Visits	2.889	.0001
Consultant	.355	1.000
Job Fair	2.560	.0001
International Recruitment	.393	.998
Memorabilia	1.791	.003
Poster and Reply Card	.767	.599
Instate Contacts	1.545	.017
Out of State Contacts	.976	.296

college placement offices was found, yielding a K-S Z of 1.632 and a 2-tailed probability of .010. The chi-square was used to determine the direction of the difference. This item was rated as of great importance by 64.9% of the large school districts and by only 40.6% of the small school districts, yielding a phi value of .24390 and a Pearson chi-square probability of .03005. The null hypothesis was rejected for this item.

A significant difference between large and small school districts in the reported importance of contact with out of state college and university placement offices was found, yielding a K-S Z of 2.113 and a 2-tailed probability of .0005. The chi-square was used to determine the direction of the difference. This item was rated as of great importance by 48.6% of large school districts and by only 20.8% of small districts, yielding a phi value of .34105 and a Pearson chi-square probability of .00033. The null hypothesis was rejected for this item.

A significant difference between large and small school districts in the reported importance of campus visits was found, yielding a K-S Z of 2.889 and a 2-tailed probability of .0001. The chi-square was used to determine the direction of the difference. This item was rated as of great importance by 68.9% of the large school districts and by only 25.5% of the small districts, yielding a phi value

of .45209 and a Pearson chi-square probability of .000001. The null hypothesis was rejected for this item.

A significant difference between large and small districts was found for the reported importance of job fairs as a teacher recruitment technique, yielding a K-S Z of 2.560 and a 2-tailed probability of .0001. The chi-square was used to determine the direction of the difference. This item was rated of great importance by 50% of the large districts and by only 15.1% of the small districts, yielding a phi value of.42532 and a Pearson chi-square probability of .000001. The null hypothesis was rejected for this item.

A significant difference between large and small school districts and the reported importance of imprinted memorabilia as a teacher recruitment practice was found, yielding a K-S Z of 1.791 and a 2-tailed probability of .003. The chi-square was used to determine the direction of the difference. This item was rated as of no importance by 53.8% of small districts and by only 28.8% of large districts. The item was also rated as having average or greater importance by 56.2% of large and only 29.3% of small districts, yielding a phi value of .28594 and a Pearson chi-square probability of .00552. The null hypothesis was rejected for this item.

A significant difference between large and small school districts for the reported importance of general reliance upon instate contacts was found, yielding a K-S Z of 1.545

and a 2-tailed probability of .017. The chi-square was used to determine the direction of the difference. This item was rated as of no importance by 23.0% of large districts and by only 9.6% of small districts. In contrast, the item was rated as of average or greater importance by 81.7% of small districts and only 63.5% of large districts, yielding a phi value of .26534 and a Pearson chi-square probability of .01381. The null hypothesis was rejected for this item.

Hypothesis 11 stated that no significant difference would be found between large and small school districts for the reported importance of 20 specific external teacher recruitment practices. The null hypothesis was rejected for seven of these items as significant differences were found. The null hypothesis was retained for 13 of the 20 specific external teacher recruitment practices. These 13 were: instate metropolitan newspaper advertising; out of state metropolitan newspaper advertising; television and video advertising; radio advertising; other district contacts; State Department of Education contacts; posting vacancies in the community; use of multidistrict coalitions; soliciting applications from nonpracticing prospects; use of consultants; recruiting internationally; use of recruitment poster with attached postal reply inquiry card; and general reliance upon out of state contacts. Data are presented in Table 12.

$H_0$12 There will be no significant difference between rural and urban school districts in the per pupil expenditure for teacher recruitment.

The per pupil expenditure for teacher recruitment was calculated by dividing the teacher recruitment budget by district enrollment. The statistic was calculated for 169 of the 182 responding school districts. School districts were regrouped as either urban, meaning located within a Metropolitan Statistical Area, or rural, meaning not located within a Metropolitan Statistical Area. Mean per pupil teacher recruitment budget was .5455 for urban districts and 1.8225 for rural districts, with a standard deviation of .775 for urban districts and 9.450 for rural districts, suggesting a much greater variance among rural districts. The F value was 148.57 with a 2-tailed probability of .0001, indicating that the variances for the 2 groups were significantly dissimilar, thus the separate variance estimate was used. The t-value was -1.47 and the 2-tailed probability was .145. The null hypothesis was retained. Data are presented in Table 13.

$H_0$13 There will be no significant difference between rural and urban school districts in the total number of financial incentive teacher recruitment practices used.

The total number of financial incentive teacher recruitment practices used was determined by counting the number of yes responses to financial incentive questions

Table 13

Per Pupil Teacher Recruitment Budget in Rural and Urban School Districts

Group	Number of of Cases	Mean	t-Value	2-tailed Probability
Urban	49	.5455	-1.47	.145
Rural	120	1.8225		

d.f. = 122.87

61-86, odd-numbered items only. School districts were grouped into urban, meaning located within a Metropolitan Statistical Area, or rural, meaning located outside a Metropolitan Statistical Area. The total number of urban school districts was 54 and of rural was 128. The mean number of financial incentive teacher recruitment practices used in urban districts was 3.6296, with a standard deviation of 2.251. The mean for rural school districts was 2.4688, with a standard deviation of 1.836. The F value was 1.50, with a 2-tailed probability of .066. Because the probability of the F value was not significant at the .05 level, the pooled variance estimate was used. The t-value

was 3.64 and the 2-tailed probability was .0001. The null hypothesis was rejected. Data are presented in Table 14.

$H_0$14 There will be no significant difference between rural and urban school districts in the use of specific financial incentive teacher recruitment practices.

The use of specific financial incentive teacher recruitment practices in rural and urban school districts was compared using the chi-square. Significance was measured at the .05 level.

Of the 13 financial incentive teacher recruitment practices, significant differences were found between rural and urban school districts for seven items. The use of a bonus for new recruits was rare, occurring in only two urban

Table 14

Total Number of Financial Incentive Teacher Recruitment Practices Used in Rural and Urban School Districts

Group	Number of of Cases	Mean	t-Value	2-tailed Probability
Urban	54	3.6296	3.64	.0001
Rural	128	2.4688		

d.f. = 180

districts, but its use in those two yielded a phi value of .16629 and an approximate significance of .02857. Rent subsidies for new teachers were provided only by 4 urban districts, yielding a phi value of .23080 and an approximate significance of .00185. Reimbursement of moving costs for new teachers was offered by 1.6% of rural districts and by 9.3% of urban districts, yielding a phi value of .18234 and an approximate significance of .01416. Accelerated sabbatical leave was provided by 18.0% of rural districts and by 43.4% of urban districts, yielding a phi value of .26577 and an approximate significance of .00035. Increasing transferrable experience was a recruitment technique used by 16.5% of rural districts and by 35.2% of urban districts, yielding a phi value of .20565 and an approximate significance of .00566. Increased salary for new teachers was reported by 29.9% of rural districts and by 50.0% of urban districts, yielding a phi value of .19149 and an approximate significance of .00999. Increased salary for all teachers as a recruitment technique was reported by 51.6% of rural districts and by 77.8% of urban districts, yielding a phi value of .24380 and an approximate significance of .00101.

A total of 13 financial incentive teacher recruitment techniques were included in the survey. A significant difference between rural and urban districts was found and the null hypothesis was rejected for just seven of these, as

described above. For the remaining six financial incentive teacher recruitment techniques, the null hypothesis was retained. These six items were: interest rate breaks for new teachers; providing other relocation assistance to new teachers; reimbursing graduate tuition; the use of merit pay schemes; the provision of internships and scholarships; and the payment of shortage area bonuses. Results are shown in Table 15.

$H_0$15 There will be no significant difference between rural and urban school districts in the total number of internal teacher recruitment practices used.

The number of internal teacher recruitment practices used was determined by counting the yes responses to questionnaire items 1-20, odd numbered items only. Urban school districts used a mean of 6.2407 internal teacher recruitment practices while rural districts used a mean of 5.8984 internal teacher recruitment practices. The F value was 1.22, with a 2-tailed probability of .377, thus the variances were not significantly different and the pooled variance estimate was used. The t-value was .97 and the 2-tailed probability was .331. Thus, the null hypothesis was retained. Results are shown in Table 16.

$H_0$16 There will be no significant difference between rural and urban school districts in the use of specific internal teacher recruitment practices.

Table 15

Use of Specific Financial Incentive Teacher Recruitment Practices in Rural and Urban School Districts

Financial Incentive	% of Rural Using	% of Urban Using	n using % of Total N	Phi Value	Approximate Significance*
New Recruits Bonus	0.0	3.7	2/1.1	.16629	.02857
Interest Break New Teachers	7.8	9.3	15/8.2	.02405	.74647
Rent Subsidy	0.0	7.4	4/2.2	.23080	.00185
Reimbursed Moving Costs	1.6	9.3	7/3.9	.18234	.01416
Other Relocation Assistance	22.7	34.0	47/26.0	.11734	.11441
Sabbatical Leave	18.0	43.4	46/25.4	.26577	.00035
Reimburse Graduate Tuition	46.5	49.1	85/47.2	.02374	.75013
Increase Transfer-rable Experience	16.5	35.2	40/22.1	.20565	.00566
Increase Salary for New	29.9	50.0	65/35.9	.19149	.00999
Increase Salary for All	51.6	77.8	108/59.3	.24380	.00101

Table 15 (Cont'd)

Use of Specific Financial Incentive Teacher Recruitment Practices in Rural and Urban School Districts

Financial Incentive	% of Rural Using	% of Urban Using	n using % of Total N	Phi Value	Approximate Significance*
Merit Pay Etc.	29.7	20.4	49/26.9	.09595	.19550
Internships, Scholar-ships, Etc.	12.6	20.4	27/14.9	.09981	.17932
Shortage Bonus	11.0	5.6	17/9.4	.08576	.24859

*Pearson chi-square probability

d.f. = 1

Ten specific internal teacher recruitment practices were included in the study. The reported use of each in rural and urban districts was compared using the chi-square at the .05 level of significance.

Significant differences were found to exist between rural and urban districts for the use of four of the ten specific internal teacher recruitment practices. Posting vacancies within the district was used by 89.8% of rural districts and by only 66.7% of urban districts, for a total

Table 16

Total Number of Internal Teacher Recruitment Practices Used in Rural and Urban School Districts

Group	Number of Cases	Mean	t-Value	2-tailed Probability*
Urban	54	6.2407	.97	.331
Rural	128	5.8984		

d.f. = 180

of 151 districts, or 83.0% of the respondents using this technique. The phi value was .28164 and the approximate significance was .00015 for the practice of posting vacancies in district. Preparing and using a descriptive brochure as a teacher recruitment technique was reported by 70.3% of rural districts and by 92.6% of urban districts,for a total of 140, or 76.9% of respondents. The phi value was .24156 and the approximate significance was .00112 for the item. Use of a future educators group was reported by only 27.6% of rural districts and by 53.7% of urban districts, yielding a phi value of .25021 and an approximate significance of .00076. Of the responding districts, a total of 64 or 35.4%, reported the use of future educators

groups in recruitment. The development of long range plans for teacher recruitment was the final area for which significance was found, with only 35.4% of rural districts and 68.5% of urban districts reporting these. The phi value was .30410 and the approximate significance was .00004. A total of 82 districts, or 45.3% of respondents reported the development of long range plans for teacher recruitment. The null hypothesis was rejected for the four specific internal teacher recruitment practices for which significance at the .05 level was found.

For six of the internal teacher recruitment practices included in the survey, no significant difference was found. Among these six items were bringing the prospect into the district for a tour, assigning an individual to conduct tours, use of teachers as recruiters, having a currently employed teacher add certification in a shortage area, asking teachers to recommend prospects, and the involvement of the local teachers association in recruitment efforts. The null hypothesis was retained for these items. Results are shown in Table 17.

$H_0$17 There will be no significant difference between rural and urban school districts in the total number of external teacher recruitment practices used.

The total number of external, or out of district, teacher recruitment practices used was calculated by counting the yes responses to questions 21-60, odd numbered

Table 17

Use of Specific Internal Teacher Recruitment Practices in Rural and Urban School Districts

Internal Recruitment Practice	% of Rural Using	% of Urban Using	n using/ % of Total N	Phi Value	Approximate Significance*
Brought Prospect for Visit	68.5	53.7	116/64.1	.14115	.05757
Individual Tour Conductor	54.7	42.6	93/51.1	.11053	.13594
Posting in District	89.8	66.7	151/83.0	.28164	.00015
Teacher Recruiter	33.1	40.7	64/35.4	.07340	.32339
Teacher Add Certification	93.8	90.7	169/92.9	.05338	.47147
Teacher Recommend Prospects	77.3	75.9	140/76.9	.01537	.83571
Association Involvement	40.6	39.6	73/40.3	.00930	.90045
Descriptive Brochure	70.3	92.6	140/76.9	.24156	.00112
FTA	27.6	53.7	64/35.4	.25021	.00076
Long Range Plans	35.4	68.5	82/45.3	.30410	.00004

*Pearson chi-square probability

d.f. = 1

items only. The t-test was used to determine significance at the .05 level. The mean number of external teacher recruitment practices used in urban school districts was 9.8519. The mean number of external teacher recruitment practices used in rural districts was 8.4141. The F value was 1.21, with a 2-tailed probability of .394, indicating the variances of the two groups were statistically similar. The pooled variance estimate was used. The t-value was 2.52, with a 2-tailed probability of .012. The null hypothesis was rejected. Data are shown in Table 18.

$H_0$18 There will be no significant difference between rural and urban school districts in the use of specific external teacher recruitment practices.

Table 18

Total Number of External Teacher Recruitment Practices Used in Rural and Urban School Districts

Group	Number of Cases	Mean	t-Value	2-tailed Probability*
Urban	54	9.8519	2.52	.012
Rural	128	8.4141		

d.f. = 180

The use of specific external teacher recruitment practices in rural and urban school districts was compared using the chi-square at the .05 level of significance. Twenty specific external teacher recruitment practices were included in the survey. Data analyzing responses to each are shown in the following paragraphs.

A significant difference between rural and urban school districts was found in their use of 10 of the 20 specific external teacher recruitment practices. The use of out of state metropolitan newspaper advertising was reported by only 23.4% of rural school districts and by 44.4% of urban districts, for a total of 54 districts using, 29.7% of the total. The phi value was .21007 and the approximate significance was .00460. The use of trade journal advertising was reported by 21.1% of rural districts and by 46.3% of urban districts, yielding a phi value of .25484 and an approximate significance of .00059. Television and video advertising was reported by 7.8% of rural districts and by 24.1% of urban districts, for 23 respondents comprising 12.6% of the total responses. The phi value was .22356 and the approximate significance was .00256. Maintaining contact with out of state college or university placement offices was reported by 50.8% of rural districts and by 77.8% of urban districts, for 107 responses comprising 58.8% of the total. The phi value was .25055 with an approximate significance of .00072. Maintaining contact with

administrators in other school districts was cited by 89.8% of rural districts and by 72.2% of urban districts, for 154 responses comprising 84.6% of total responses. The phi value was .22310 and the approximate significance was .00261. Campus visits were reported by 76.6% of rural districts and by 92.6% of urban respondents, for a total of 148 respondents comprising 81.3% of the total. The phi value was .18787 and the approximate significance was .01126. Teacher job fairs were visited by 65.6% of rural districts and by 90.7% of urban districts, for a total of 133 respondents comprising 73.1% of the total. The phi value was .25866 and the approximate significance was .00048. Recruiting internationally was reported by 4.7% of rural districts and by 14.8% of urban districts, for 14 yes responses comprising 7.7% of the total. The phi value was .17361 and the approximate significance was .01917. The use of imprinted memorabilia was reported by 21.9% of rural districts and by 49.1% of urban districts, representing 54 yes responses and 29.8% of the total. The phi value was .27035 and the approximate significance was .00028.

Differences between rural and urban districts in their reliance upon in-state and out of state contacts were statistically significant. General reliance upon instate contacts was reported by 77.2% of rural districts and by only 53.7% of urban districts, representing 127 yes responses for 70.2% of the total. The phi value was .23462,

with an approximate significance of .00160. General reliance upon out of state contacts was reported by 18.1% of rural districts and by 35.2% of urban districts, for a total of 42 yes responses representing 23.2% of the total. The phi value was .18507 and the approximate significance was .01278.

Thus, the null hypothesis was rejected for the 11 items for which significant differences were found between rural and urban districts, as outlined in the preceding paragraphs. The null hypothesis was retained for 9 of the 20 items. These were: the use of in-state metropolitan newspaper advertising; the use of radio advertising; contact with in-state college or university placement offices; State Department of Education contacts; posting vacancies in the community; forming multidistrict coalitions; soliciting applications from certificated nonpracticing prospects; the use of consultants; and the use of recruitment poster with attached postal reply inquiry cards. Data are shown in Table 19.

$H_0$19 There will be no significant difference between subject areas of teacher shortage reported in rural and urban school districts.

Specific subject or endorsements areas for which teacher shortage conditions or difficulty filling vacancies were reported were compared for rural and urban school districts using the chi-square at the .05 level of

Table 19

Use of Specific External Teacher Recruitment Practices in Rural and Urban School Districts

External Recruitment Practice	% of Rural Using	% of Urban Using	n using/ % of Total N	Phi Value	Approximate Significance*
Instate Metropolitan Newspaper Ad	57.0	62.3	106/58.6	.04834	.51547
Out of State Metropolitan Newspaper Ad	23.4	44.4	54/29.7	.21007	.00460
Trade Journal Ad	21.1	46.3	52/28.6	.25484	.00059
Television, Video Ad	7.8	24.1	23/12.6	.22356	.00256
Radio Ad	4.7	3.7	8/4.4	.02192	.76742
Instate Placement Offices	88.3	92.6	163/89.6	.06441	.38489
Out of State Placement Offices	50.8	77.8	107/58.8	.25055	.00072
Other District Contact	89.8	72.2	154/84.6	.22310	.00261
State Department of Education Contacts	75.0	61.1	129/70.9	.13965	.05957

Table 19 (Cont'd)

Use of Specific External Teacher Recruitment Practices in Rural and Urban School Districts

External Recruitment Practice	% of Rural Using	% of Urban Using	n using/ % of Total N	Phi Value	Approximate Significance*
Posting in Community	65.6	57.4	115/63.2	.07783	.29371
Multidistrict Coalition	22.7	26.4	43/23.8	.04019	.58871
Nonpracticing Prospects	50.8	46.3	90/49.5	.04098	.58039
Campus Visits	76.6	92.6	148/81.3	.18787	.01126
Consultant	3.9	9.3	10/5.5	.10731	.14771
Job Fair	65.6	90.7	133/73.1	.25866	.00048
International Recruiting	4.7	14.8	14/7.7	.17361	.01917
Memorabilia	21.9	49.1	54/29.8	.27035	.00028
Poster and Reply Card	17.2	27.8	37/20.3	.12021	.10488
Instate Contacts	77.2	53.7	127/70.2	.23462	.00160
Out of State Contacts	18.1	35.2	42/23.2	.18507	.01278

*Pearson chi-square probability

d.f. = 1

significance. A total of 21 endorsement areas were included in the survey.

Significant differences between rural and urban school districts were found for only 5 of the 21 endorsement areas. Special education was one area in which a significant difference between rural and urban districts was found. Special education was cited as a shortage area by 77.3% of rural districts and by 90.7% of urban districts, with a total of 148 yes responses for 81.3% of the total. The phi value was .15701 and the approximate significance was .03416. The vocational trades area was another for which a significant difference was found between rural and urban districts, with 21.1% of rural and 37.0% of urban districts reporting difficulty filling these positions. There were a total of 47 yes responses, for 25.8% of the total, yielding a phi value of .16640 and an approximate significance of .02477. Shortages of secondary endorsement areas of certification, grades 9-12, were more common in rural areas with 26.6% of rural districts reporting difficulty filling some secondary positions and only 5.6% of urban districts reporting this difficulty. A total of 37 yes responses were received, representing 20.3% of total responses, yielding a phi value of .23844 and an approximate significance of .00130. Difficulty filling positions in primary grades K-2 was reported by only .8% of rural districts and by 13.0% of urban districts, for a total of 8 yes responses representing

4.4% of the total. The phi value was .27145 and the approximate significance was .00025. Difficulty filling elementary classroom posts was reported by two urban districts and one rural school district, for 1.6% of the total, yielding a phi value of .27030 and an approximate significance of .00024. The null hypothesis was rejected only for these five items and was retained for 16 of the 21 items. Data are presented in Table 20.

$H_0$20 There will be no significant difference between rural and urban school districts in the reported importance of specific financial incentive teacher recruitment practices.

The reported importance of specific financial incentive teacher recruitment practices in rural and urban districts was compared using the Komolgorov-Smirnov two sample test at the .05 level of significance. Thirteen specific financial incentive teacher recruitment practices were included in the survey. These were: paying a bonus to new recruits; interest rate breaks for new teachers; rent subsidy; reimbursing moving costs; other relocation assistance; sabbatical leave; reimbursing graduate tuition; increasing transferrable experience; increasing salary for new teachers; increasing salary for all teachers; the use of merit pay; the use of internships and scholarships; and paying shortage area bonuses. No significant difference between rural and urban districts in the reported importance

Table 20

Subject Areas of Teacher Shortage in Rural and Urban School Districts

Endorsement Area	% of Rural	% of Urban	n Citing/ % of Total N	Phi Value	Approximate Significance*
Special Education	77.3	90.7	148/81.3	.15701	.03416
Foreign Language	52.3	50.0	94/51.6	.02142	.77256
Counselor, Psychologist	34.6	37.0	64/35.4	.02289	.75816
Science	32.8	37.0	62/34.1	.04072	.58278
Library Media	29.7	40.7	60/33.0	.10741	.14733
Bilingual, ESL, ESOL	29.7	33.3	56/30.8	.03608	.62640
Math	28.9	29.6	53/29.1	.00727	.92183
Vocational, Trades	21.1	37.0	47/25.8	.16640	.02477
Secondary, 9-12	26.6	5.6	37/20.3	.23844	.00130
Middle Grades, 6-8	17.2	20.4	33/18.1	.03774	.61068
Art	13.3	7.4	21/11.5	.08398	.25721
Computer Education	11.1	11.7	21/11.5	.00869	.90669
Reading	9.4	14.8	20/11.0	.07945	.28377
Other Shortage Areas	8.6	14.8	19/10.4	.09294	.20991

Table 20 (Cont'd)

Subject Areas of Teacher Shortage in Rural and Urban School Districts

Endorsement Area	% of Rural	% of Urban	n Citing/ % of Total N	Phi Value	Approximate Significance*
Music	8.6	5.6	14/7.7	.05208	.48228
English	4.7	5.6	9/4.9	.01829	.80511
Business Education	6.3	1.9	9/4.9	.09267	.21124
Primary, K-2	.8	13.0	8/4.4	.27145	.00025
Physical Education	1.6	3.7	4/2.2	.06671	.36811
Elementary, 3-5	.8	3.7	3/1.6	.27030	.00024
Social Studies	.8	0.0	1/0.5	.04828	.51485

*Pearson chi-square probability

d.f. = 1

of these financial incentive teacher recruitment practices was found and the null hypothesis was retained. Data are shown in Table 21.

Table 21

Importance of Specific Financial Incentive Teacher Recruitment Practices in Rural and Urban School Districts

Financial Incentive	K-S Z	2-tailed Probability
New Recruits Bonus	.195	1.000
Interest Break New Teachers	.976	.297
Rent Subsidy	.651	.791
Reimbursed Moving Costs	.358	1.000
Other Relocation Assistance	.615	.844
Sabbatical Leave	1.222	.101
Reimburse Graduate Tuition	.333	1.000
Increase Transferrable Experience	.835	.489
Increase Salary for New	1.165	.132
Increase Salary for All	1.004	.266
Merit Pay, Etc.	.781	.576
Internships, Scholarships	.678	.748
Shortage Bonus	.293	1.000

d.f. = 1

$H_0$21 There will be no significant difference between rural and urban school districts in the reported importance of specific internal teacher recruitment practices.

The importance of specific internal teacher recruitment practices was compared using the Komolgorov-Smirnov two sample test at the .05 level of significance. When a significant difference was found, the chi-square was used to determine the direction of the difference. Ten internal teacher recruitment practices were included in the survey. A significant difference between rural and urban school districts in the reported importance of specific internal teacher recruitment practices was found for three of the ten items surveyed.

The descriptive brochure was one area for which a significant difference was found between rural and urban districts, with a K-S Z of 1.478 and a 2-tailed probability of .025. Further analysis with the chi-square revealed that 50% of urban districts rated this item as of great importance, while only 26% of rural districts rated the item as highly. The phi value was .25822 and the approximate significance, the Pearson chi-square probability, was .01685. Thus, the null hypothesis was rejected for this item.

The item, use of a future educators group as a teacher recruitment practice, was also rated more highly by urban districts. A significant difference was found between rural

and urban districts in the reported importance of future educators groups in teacher recruitment, with a K-S Z of 1.696 and a 2-tailed probability of .006. Further analysis with the chi-square revealed the item was rated as of great importance by 27.8% of urban districts and by only 8.9% of rural districts. The phi value was .29722 and the approximate significance was .00341. The null hypothesis was rejected for this item.

Long range planning for teacher recruitment was the third internal teacher recruitment practice for which a significant difference was found between rural and urban districts in the reported importance of the item. The K-S Z was 1.903 and the 2-tailed probability was .001. Further analysis with the chi-square revealed that 29.6% of urban districts rated the item as of great importance while only 13.5% of rural districts did so. The item was rated as of no importance by 13.0% of urban districts and by 27.8% of rural districts. The phi value was .29686 and the approximate significance was .00321. The null hypothesis was rejected for this item.

No significant difference was found between rural and urban districts in the reported importance of seven of the ten internal teacher recruitment practices included in the survey. These were: bringing the prospect to the district for a visit; assigning an individual to conduct tours; posting vacancies within the district; using a teacher as

recruiter; assisting a current teacher to add certification in a shortage area; asking current teachers to recommend prospects; and involvement of the local professional education association in recruitment. The null hypothesis was retained. Data are shown in Table 22.

Table 22

Importance of Specific Internal Teacher Recruitment Practices in Rural and Urban School Districts

Internal Recruitment Practice	K-S Z	2-tailed Probability
Bringing Prospect for Visit	.992	.278
Individual Tour Conductor	.470	.980
Posting in District	.723	.672
Teacher as Recruiter	.843	.476
Teacher Add Certification	.333	1.000
Teacher Recommend Prospects	.364	.999
Association Involvement	.220	1.000
Descriptive Brochure	1.478	.025
FTA	1.696	.006
Long Range Plans	1.903	.001

d.f. = 1

$H_0$22 There will be no significant difference between rural and urban school districts in the reported importance of specific external teacher recruitment practices.

The reported importance of 20 specific external teacher recruitment practices in rural and urban school districts was compared using the Komolgorov-Smirnov two sample test at the .05 level of significance. When a significant difference was found, further analysis was done with the chi-square to determine the direction of the difference. Of the 20 external teacher recruitment practices surveyed, a significant difference between rural and urban districts was found for only 4.

A significant difference between rural and urban districts was found for the reported importance of contacts with out of state college and university placement offices. The K-S Z was 1.900 and the 2-tailed probability was .001. Further analysis with the chi-square revealed that the item was rated as of great importance by 53.7% of urban districts and by only 22.8% of rural districts. The phi value was .33242 and the approximate significance, the Pearson chi-square probability, was .00050. The null hypothesis was rejected for this item.

A significant difference between rural and urban districts was found for the reported importance of campus visits, yielding a K-S Z of 1.906 and a 2-tailed probability of .001. Further analysis with the chi-square revealed that

campus visits were rated of great importance as a teacher recruitment technique by 64.8% of urban districts and by only 33.9% of rural districts. The phi value was .32014 and the approximate significance, Pearson chi-square probability, was .00096. The null hypothesis was rejected for this item.

Analysis of the reported importance of job fairs in rural and urban school districts yielded a significant difference, with a K-S Z of 2.236 and a 2-tailed probability of .0001. Further analysis with the chi-square revealed a rating of great importance by 51.9% of urban districts and by only 19.7% of rural districts. The phi value was .37037 and the approximate significance was .00005. The null hypothesis was rejected for this item.

The final external teacher recruitment practice for which a significant difference was found between rural and urban school districts was the use of imprinted memorabilia. The K-S Z was 1.603 and the 2-tailed probability was .012. Further analysis with the chi-square found the item was rated as of no importance by 48.8% of rural districts and by only 30.2% of urban districts. The item was rated as of average or greater importance by 58.4% of urban districts and by only 32.3% of rural districts. The phi value was .24621 and the approximate significance was .02758. The null hypothesis was rejected for this item.

No significant difference between rural and urban districts in the reported importance of specific external teacher recruitment practices was found for 16 of the items. These were: in-state metropolitan newspaper advertising; out of state metropolitan newspaper advertising; trade journal advertising; television and video advertising; radio advertising; in-state college or university placement office contacts; other district contacts; State Department of Education contacts; posting vacancies in the community; multidistrict coalitions; soliciting applications from certificated nonpracticing prospects; teacher recruitment consultants; recruiting internationally; the use of a recruitment poster with attached postal reply inquiry card; general reliance upon in-state contacts; and general reliance upon out of state contacts. The null hypothesis was retained. Data are shown in Table 23.

$H_0$23 There will be no significant difference between districts experiencing teacher shortages and those not experiencing teacher shortages in the per pupil expenditure for teacher recruitment.

The per pupil expenditure for teacher recruitment was calculated by dividing the district's teacher recruitment budget by enrollment. The mean per pupil teacher recruitment budget in districts with shortages was 2.5531 and that for districts without shortages was .665. The *t*-test was used to determine significance at the .05 level of confidence. The F value was 289.27 with a 2-tailed

Table 23

Importance of specific External Teacher Recruitment Practices in Rural and Urban School Districts

External Recruitment Practice	K-S Z	2-tailed Probability
Instate Metropolitan Newspaper Ad	.204	1.000
Out of State Metropolitan Newspaper Ad	1.181	.123
Trade Journal Ad	1.239	.093
Television Video Ad	1.057	.214
Radio Ad	.425	.994
Instate College Placement Offices	.951	.327
Out of State College Placement Offices	1.900	.001
Other District Contacts	1.147	.144
State Department of Education Contact	.786	.567
Posting in Community	.239	1.000
Multidistrict Coalition	.701	.709
Nonpracticing Prospects	.328	1.000
Campus Visits	1.906	.001
Consultant	.180	1.000
Job Fair	2.236	.0001
International Recruitment	.564	.908
Memorabilia	1.603	.012
Poster and Reply Card	.922	.363
Instate Contacts	1.209	.107
Out of State Contacts	.536	.936

d.f. = 1

probability of .0001, indicating that the variances of the two groups were significantly different. The separate variance estimate was used. The t-value was 1.74 and the 2-tailed probability was .085. Although the mean per pupil expenditure for teacher recruitment was higher in those districts with shortages, the difference was not significant at the .05 level.

Further analysis of the data revealed the presence of an outlier among districts experiencing teacher shortage conditions. A single small rural district with a total enrollment of 1,550 students reported a teacher recruitment budget of $150,000, or $96.77 per pupil. This amount was 329% of the closest per pupil teacher recruitment budget of $29.41 reported by another small rural district with teacher shortage conditions. The t-value was recalculated excluding the outlier to determine if it was so skewing the data as to mask significance. When recalculated without the outlier, the F value was 41.67, with a 2-tailed probability of .0001, indicating the variances of the 2-groups were significantly different. The recalculated standard deviation for those with shortages was 4.290, in contrast to the 11.303 standard deviation when the outlier was included. For the recalculated value, the separate variance estimate was used. The t-value was 2.12 and the 2-tailed probability was .032. Results of both calculations, with and without outlier, are shown in Table 24.

Table 24

Per Pupil Teacher Recruitment Budget in Districts With and Districts Without Teacher Shortage Conditions, Calculated Including and Excluding Outlier

Group	Number of Cases	Mean	t-Value	degrees of Freedom	2-tailed Probability
Shortage, Outlier Included	83	2.5531	1.74	82.5	.085
No Shortage	86	.3898			
Shortage, Outlier Excluded	82	1.4041	2.12	84.71	.037
No Shortage	86	.3898			

Because the data did not meet the t-test assumption of normal distribution, further analysis was done. Respondents were divided into two natural groupings. Members of group one reported a per pupil budget for teacher recruitment of $0.00. Members of group two reported a per pupil teacher recruitment budget greater than zero, an actual teacher recruitment budget. When these two groups were compared using the chi-square, a significant difference was found. Of districts reporting shortage conditions, 27.7% reported a per pupil teacher recruitment budget of $0.00 and 72.3%

reported a per pupil teacher recruitment budget greater than zero. Among districts reporting no teacher shortage conditions, 44.2% reported a per pupil teacher recruitment budget of $0.00 and 55.8% reported a per pupil teacher recruitment budget greater than zero. The phi-value was .17149 and the approximate significance was .02579. Thus, a significant difference was found between districts with teacher shortage conditions and those with no shortage in the per pupil budget for teacher recruitment and the null hypothesis was rejected. Data are shown in Table 25.

Table 25

Teacher Recruitment Budgets in Districts With Teacher Shortage and Districts With No Shortage

	% n With Shortage	% n Without Shortage	n Citing/ % Total N	Phi Value	Approximate* Significance
Recruitment Budget = 0	27.7	44.2	61/36.1	.17149	.02579
Recruitment Budget > 0	72.3	55.8	108/63.9		

*Pearson chi-square probability

d.f. = 1

$H_0$24 There will be significant difference between districts experiencing teacher shortages and those not experiencing teacher shortages in the total number of financial incentive teacher recruitment practices used.

The total number of financial incentive teacher recruitment practices used was determined by counting the yes responses to survey questions 61 to 86, odd numbered items only. Sums were compared using the t-test in order to determine if a significant difference existed between districts experiencing teacher shortage conditions and those with no teacher shortage. The mean number of financial incentive teacher recruitment practices used in districts with shortages was 3.0108. The mean number of financial incentive teacher recruitment practices used in districts with no reported shortage was 2.6067. The F value was 1.13, with a 2-tailed probability of .563, indicating the variances were statistically similar. The pooled variance estimate was used. The t-value was 1.34 and the 2-tailed probability was .181. Thus, no significant difference was found and the null hypothesis was retained. Data are shown in Table 26.

$H_0$25 There will be no significant difference between districts experiencing teacher shortages and those not experiencing teacher shortages in the use of specific financial incentive teacher recruitment practices.

Table 26

Total Number of Financial Incentive Teacher Recruitment Practices Used in District With and Districts Without Teacher Shortage Conditions

Group	Number of Cases	Mean	t-Value	2-tailed Probability
With Shortage	93	3.0108	1.34	.181
No Shortage	89	2.6067		

The use of specific financial incentive teacher recruitment practices in districts with teacher shortage conditions and those with no shortages was compared using the chi-square with significance at the .05 level. Thirteen specific financial incentives were included in the survey. These were: a bonus for new recruits; interest rate breaks for new teachers; rent subsidies; reimbursed moving costs; other relocation assistance; sabbatical leave; reimbursed graduate tuition; increased transferrable experience; increased salary for new teachers; increased salary for all teachers; merit pay, etc.; internships and scholarships; and shortage area bonuses. No significant difference was found

between districts with shortages and those without shortages in their use of financial incentives in teacher recruitment. The null hypothesis was retained. Data are shown in Table 27.

$H_0$26 There will be no significant difference between districts experiencing teacher shortages and those not experiencing teacher shortages in the total number of internal teacher recruitment practices used.

The total number of internal teacher recruitment practices used in districts with teacher shortage and districts without teacher shortage was determined by counting the yes responses to survey items 1-20, odd numbered items only. The t-test for differences between means was used to determine if a significant difference, at the .05 level of confidence, existed between the two groups. The mean number of internal teacher recruitment practices used in districts with shortages was 6.3978 and that for districts with no reported shortage was 5.5843. The F value was 1.16, with a 2-tailed probability of .490, indicating the variances of the 2 groups were similar. The pooled variance estimate was used. The t-value was 2.57, with a 2-tailed probability of .011. The difference between school districts with teacher shortage conditions and those with no reported shortage in the mean number of internal teacher recruitment practices used was significant at the

Table 27

Use of Specific Financial Incentive Teacher Recruitment Practices in Districts With and Districts Without Teacher Shortage Conditions

Financial Incentive	% With Shortage Using	% Without Shortage Using	n Using/ % Total N	Phi Value	Approximate Significance
New Recruits Bonus	2.2	0.0	2/1.1	.10312	.16419
Interest Break New Teachers	10.8	5.6	15/8.2	.09334	.20797
Rent Subsidy	2.2	2.2	4/2.2	.00330	.96454
Reimbursed Moving Costs	4.3	3.4	7/3.9	.02312	.75575
Other Relocation Assistance	29.0	22.7	47/26.0	.07187	.33357
Sabbatical Leave	29.3	21.3	46/25.4	.09186	.21654
Reimburse Graduate Tuition	49.5	44.9	85/47.2	.04513	.54482
Increase Transfer Experience Increase	22.8	21.3	40/22.1	.01781	.81068
Salary for New	37.6	34.1	65/35.9	.03692	.61942
Increase Salary for All	60.2	58.3	108/59.3	.01820	.80608

Table 27 (Cont'd)

Use of Specific Financial Incentive Teacher Recruitment Practices in Districts With and Districts Without Teacher Shortage Conditions

Financial Incentive	% With Shortage Using	% Without Shortage Using	n Using/ % Total N	Phi Value	Approximate Significance
Merit Pay, Etc.	31.2	22.5	49/26.9	.09817	.18538
Internships, Scholarships, Etc.	14.1	15.7	27/14.9	.02245	.76261
Shortage Bonus	9.8	9.0	17/9.4	.01360	.85478

*Pearson chi-square probability

d.f. = 1

.05 level and the null hypothesis was rejected. Data are presented in Table 28.

$H_0$27 There will be no significant difference between districts experiencing teacher shortages and those not experiencing teacher shortages in the use of specific internal teacher recruitment practices.

The use of 10 specific internal teacher recruitment practices in districts with teacher shortage and those with no shortage was compared using the chi-square at the

Table 28

Total Number of Internal Teacher Recruitment Practices Used in Districts With Teacher Shortage and Those With No Teacher Shortage

Group	Number of Cases	Mean	t-Value	2-tailed Probability
With Shortage	93	6.3978	2.57	.011
No Shortage	89	5.5843		

d.f. = 180

.05 level of confidence. Of the 10, a significant difference between districts with shortage and those with no shortage was found for only one item. The use of descriptive brochures was greater in districts with shortage. The use of descriptive brochures was reported by 84.9% of those districts with shortage and by only 68.5% of districts with no shortage. The phi value was .19466 and the approximate significance, the Pearson chi-square probability, was .00864. This perhaps indicates a greater interest in advertising the district among those districts experiencing shortage conditions. No significant difference was found for the nine remaining internal teacher recruitment practices. These were: bringing prospective

teacher to district for visit; assigning an individual tour conductor; posting vacancies in the district; using a teacher as recruiter; requesting a current teacher to add certification in a shortage area; asking teacher to recommend prospects; involvement of the local teacher association; involvement of future educators group; and the development of long range plans. The null hypothesis was rejected for only one item, the use of descriptive brochures, and was retained for the remaining nine. Results are shown in Table 29.

$H_0$28 There will be no significant difference between districts experiencing teacher shortages and those not experiencing teacher shortages in the total number of external teacher recruitment practices used.

The total number of external teacher recruitment practices used in districts with teacher shortages and those with no shortage was determined by counting the yes responses to survey questions 21-60, odd numbered items only. The t-test for differences between means was used to determine if a significant difference existed between the two groups, testing at the .05 level of confidence. The mean number of external teacher recruitment practices in districts with teacher shortage was 9.4409 and that for districts with no shortage was 8.2135. The F value was 1.24, with a 2-tailed probability of .316, indicating the variances of the 2 groups were similar. The pooled variance

Table 29

Use of Specific Internal Teacher Recruitment Practices in Districts With Teacher Shortages and Districts With No Teacher Shortage

Internal Recruitment Practice	% With Using	% Without Using	n Using/ % of Total N	Phi Value	Approximate Significance
Brought Prospect for Visit	63	65.2	116/64.1	.02214	.76576
Individual Tour Conductor	58.1	43.8	93/51.1	.14244	.05465
Posting in District	83.9	82.0	151/83.0	.02458	.74019
Teacher as Recruiter	40.2	30.3	64/35.4	.10332	.16453
Teacher Add Certification	95.7	89.9	169/92.9	.11280	.12808
Teacher Recommend Prospects	82.8	70.8	140/76.9	.14248	.05458
Teacher Association Involvement	42.4	38.2	73/40.3	.04269	.56574
Descriptive Brochure	84.9	68.5	140/76.9	.19466	.00864
FTA	41.9	28.4	64/35.4	.14141	.05711
Long Range Plans	48.4	42.0	82/45.3	.06367	.39164

*Pearson chi-square probability

d.f. = 1

estimate was used. The t-value was 2.35 and the 2-tailed probability was .020. A significant difference was found between districts with teacher shortage conditions and those with no teacher shortage conditions in their use of external teacher recruitment practices and the null hypothesis was rejected. Data are shown in Table 30.

$H_0$29 There will be no significant difference between districts experiencing teacher shortages and those not experiencing teacher shortages in the use of specific external teacher recruitment practices.

Table 30

Total Number of External Teacher Recruitment Practices Used in Districts with Teacher Shortage and Those with No Shortage

Group	Number of Cases	Mean	t-Value	2-tailed Probability
Shortage	93	9.4409	2.35	.020
No Shortage	89	8.2135		

d.f. = 180

The use of specific external, or out of district, teacher recruitment practices in districts with teacher shortage and those with no shortage was compared using the chi-square, testing at the .05 level of confidence. A total of 20 external teacher recruitment practices were included in the survey and a significant difference was found for only 3. The use of instate metropolitan newspaper advertising was reported by 67.4% of districts with shortages and by only 49.4% of districts with no shortage. The phi value was .18820 and the approximate significance was .01424. Maintaining contacts with college and university placement offices in other states was reported by 68.8% of districts with shortages and by only 48.3% of districts with no shortage. The phi value was .20822 and the approximate significance was .00497. The use of imprinted memorabilia as a recruitment technique was reported by 38.0% of districts with shortage and by only 21.3% of districts with no shortage. The phi value was .18242 and the approximate significance was .01412. The null hypothesis was rejected for these 3 specific external teacher recruitment practices.

No significant difference between districts with teacher shortage conditions and those with no shortage was found for the remaining 17 external teacher recruitment practices. These were: out of state metropolitan newspaper advertising; trade journal advertising; television video

advertising; radio advertising; contact with instate college or university placement offices; other districts contacts; State Department of Education contacts; posting vacancies in the community; use of multidistrict coalitions; soliciting applications from certificated nonpracticing prospects; campus visits; use of consultants; job fairs; recruiting internationally; use of recruitment poster with attached postal reply inquiry card; general reliance upon instate contacts; and general reliance upon out of state contacts. The null hypothesis was retained. Data are shown in Table 31.

$H_0$30 There will be no significant difference between districts experiencing teacher shortages and those not experiencing teacher shortages in the reported importance of specific financial incentive teacher recruitment practices.

The reported importance of specific financial incentive teacher recruitment practices in districts with shortage conditions and those with no shortage was compared using the Komolgorov-Smirnov two sample test, with significance at the .05 level of confidence. When a significant difference was found the chi-square was used to determine the direction of the difference.

Thirteen specific financial incentive teacher recruitment practices were included in the survey. A significant difference between districts with shortage conditions and districts with no shortage was found for only

Table 31

Use of Specific External Teacher Recruitment Practices in Districts With Teacher Shortage and those With No Teacher Shortage

External Recruitment Practice	% With Using	% Without Using	n Using/ % of Total N	Phi Value	Approximate* Significance
Instate Metropolitan Newspaper Ad	67.4	49.4	106/58.6	.18220	.01424
Out of State Metropolitan Newspaper Ad	34.4	24.7	54/29.7	.10603	.15259
Trade Journal Ad	32.3	24.7	52/28.6	.08342	.26042
TV Video Ad	12.9	12.4	23/12.6	.00818	.91214
Radio Ad	3.2	5.6	8/4.4	.05833	.43131
Instate College Placement Offices	89.2	89.9	163/89.6	.01047	.88769
Out of State College Placement Offices	68.8	48.3	107/58.8	.20822	.00497
Other District Contacts	89.2	79.8	154/84.6	.13123	.07666
State Department of Education	73.1	68.5	129/70.9	.05038	.49671
Posting Vacancy in Community	67.7	58.4	115/63.2	.09655	.19276

Table 31 (Cont'd)

Use of Specific External Teacher Recruitment Practices in Districts With Teacher Shortage and those With No Teacher Shortage

External Recruitment Practice	% With Using	% Without Using	n Using/ % of Total N	Phi Value	Approximate* Significance
Multidistrict Coalition	21.7	25.8	43/23.8	.04820	.51666
Nonpracticing Prospects	54.8	43.8	90/49.5	.11016	.13722
Campus Visits	84.9	77.5	148/81.3	.09514	.19932
Consultant	7.5	3.4	10/5.5	.09117	.21871
Job Fair	76.3	69.7	133/73.1	.07529	.30973
Recruiting Interna-tionally	8.6	6.7	14/7.7	.03490	.63773
Memorabilia	38.0	21.3	54/29.8	.18242	.01412
Poster and Reply Card	21.5	19.1	37/20.3	.02986	.68704
Instate Contacts	67.4	73.0	127/70.2	.06165	.40685
Out of State Contacts	27.2	19.1	42/23.2	.09560	.19836

*Pearson chi-square probability

d.f. = 1

1 of the 13 items. Merit pay was rated as of more importance as a teacher recruitment practice by districts with a teacher shortage, yielding a K-S Z of 1.582 and a 2-tailed probability of .013. Further analysis with the chi-square found that merit pay was rated as of no importance by 37.4% of districts with shortages and by 56.2% of districts with no shortages. Merit pay was rated as of average or greater importance by 40.6% of districts with shortages and by only 27.0% of districts with no shortage. The phi value was .26757 and the approximate significance was .001184. The null hypothesis was rejected for this item.

No significant difference between districts with teacher shortages and those with no shortage was found for 12 of the 13 specific financial incentive teacher recruitment practices. These were: new recruits bonus; interest rate breaks for new teachers; rent subsidies; reimbursed moving costs; other relocation assistance; sabbatical leave; reimbursed graduate tuition; increased transferrable experience; increased salary for new teachers; increased salary for all teachers; the use of internships and scholarships; and the payment of shortage area bonuses. The null hypothesis was retained. Results are shown in Table 32.

$H_0$31 There will be no significant difference between districts experiencing teacher shortages and those not

Table 32

Reported Importance of Specific Financial Incentive Teacher Recruitment Practices in Districts with Teacher Shortage and Those With No Teacher Shortage

Financial Incentive	K-S Z	2-tailed Probability
New Recruits Bonus	1.089	.186
Interest Break for New Teachers	1.002	.268
Rent Subsidy	1.160	.136
Reimbursed Moving Costs	1.047	.223
Other Relocation Assistance	1.110	.170
Sabbatical Leave	.952	.325
Reimburse Graduate Tuition	.948	.330
Increase Transferrable Experience	.462	.983
Increase Salary for New	1.169	.130
Increase Salary for All	.961	.314
Merit Pay	1.582	.013
Internships, Scholarships	.913	.374
Shortage Bonus	1.295	.070

experiencing teacher shortages in the reported importance of specific internal teacher recruitment practices.

The reported importance of specific internal teacher recruitment practices in districts with teacher shortages

and those with no teacher shortage was compared using the Komolgorov-Smirnov two sample test, with significance at the .05 level of confidence. When a significant difference was found, further analysis was to be done with the chi-square to determine the direction of the difference. No significant difference was found for any of the ten items and further analysis was unnecessary. The 10 items were: bringing prospect into the district for a visit; assigning an individual to conduct district tours; posting vacancies in the district; using a teacher as recruiter; having a current teacher add certification in a shortage area; asking current teacher to recommend prospect; involvement of local education association; descriptive brochure use; involvement of a future educators group; and the development of long range plans. The null hypothesis was retained. Data are shown in Table 33.

$H_0$32 There will be no significant difference between districts experiencing teacher shortages and those not experiencing teacher shortages in the reported importance of specific external teacher recruitment practices.

The reported importance of specific external teacher recruitment practices in districts experiencing teacher shortages and those with no shortage was compared using the Komolgorov-Smirnov two sample test, with significance at the .05 level of confidence. Twenty specific external teacher recruitment practices were included in the study and a

Table 33

Reported Importance of Specific Internal Teacher Recruitment Practices in Districts With Teacher Shortage and Those Without Teacher Shortage

Internal Recruitment Practice	K-S Z	2-tailed Probability
Brought Prospect for Visit	.333	1.000
Individual Tour Conductor	.974	.299
Posting in District	.274	1.000
Teacher as Recruiter	.901	.391
Teacher Add Certification	.937	.343
Teacher Recommend Prospects	1.010	.259
Teachers Association Involvement	.863	.446
Descriptive Brochure	.966	.308
FTA	1.028	.242
Long Range Plans	.835	.488

significant difference between the two groups was found in the reported importance of three, using the Komolgorov-Smirnov two sample test.

The reported importance of maintaining contact with in-state college and university placement offices differed for the 2 groups, yielding a K-S Z of 1.449 and an approximate

significance of .030. Further analysis with the chi-square found that 60.9% of school districts experiencing teacher shortages rated the item as of great importance, while only 39.3% of those with no shortage did so. The phi value was .22789 and the approximate significance, the Pearson chi-square probability, was .05185. Using the chi-square statistic, this item was not significant at the .05 level of confidence and the null hypothesis was retained.

Maintaining contact with college and university placement offices in other states was an external teacher recruitment practice for which a significant difference was found between districts experiencing teacher shortages and those with no shortage. The K-S Z was 2.190 and the 2-tailed probability was .0005. Further analysis with the chi-square revealed the item was rated as of average or greater importance by 67.4% of districts with teacher shortages and by only 34.8% of districts with no shortage. The phi value was .33335 and the approximate significance was .00047. The null hypothesis was rejected for this item.

The reported importance of campus visits as an external recruitment practice differed in districts with shortages and those with no shortage. The K-S Z was 1.391 and the 2-tailed probability was .042. Further analysis with the chi-square found that campus visits were rated as of no importance by 18% of districts with no shortage and by only 5.4% of those with teacher shortages. Campus visits were

rated as of great importance by 53.3% of districts with shortages and by only 32.6% of districts with no shortage. The phi value was .25888 and the approximate significance, the Pearson chi-square probability, was .01641. The null hypothesis was rejected for this item.

No significant difference was found using the Komolgorov-Smirnov two sample test for the remaining 17 specific external teacher recruitment practices included in the survey. These were: in-state metropolitan newspaper advertising; out of state metropolitan newspaper advertising; trade journal advertising; television video advertising; radio advertising; contact with other districts; State Department of Education contacts; posting vacancies in the community; use of multidistrict coalitions; soliciting applications from certificated nonpracticing prospects; use of consultants; job fairs; recruiting internationally; use of imprinted memorabilia; use of recruitment poster with attached postal reply inquiry card; general reliance upon in-state contacts; and general reliance upon out of state contacts. The null hypothesis was retained. Results are shown in Table 34.

$H_0$33 There will be no significant difference between large and small school districts in the total number of teacher recruitment practices used.

Table 34

Reported Importance of Specific External Teacher Recruitment Practices in Districts With Teacher Shortage and Those Without Teacher Shortage

External Recruitment Practice	K-S Z	2-tailed Probability
Instate Metropolitan Newspaper Ad	.951	.327
Out of State Metropolitan Newspaper Ad	.803	.539
Trade Journal Ad	1.023	.246
TV Video Ad	.709	.696
Radio Ad	.288	1.000
Instate College Placement Offices	1.449	.030
Out of State College Placement Offices	2.190	.0005
Other Districts Contacts	.848	.468
State Department of Education Contact	.613	.847
Posting in Community	1.070	.202
Multidistrict Coalition	.609	.852
Nonpracticing Prospects	.999	.271
Campus visits	1.391	.042
Consultant	.711	.692
Job Fair	1.069	.204
Recruiting Internationally	.543	.930
Memorabilia	1.257	.085

Table 34 (Cont'd)

Reported Importance of Specific External Teacher Recruitment Practices in Districts With Teacher Shortage and Those Without Teacher Shortage

External Recruitment Practice	K-S Z	2-tailed Probability
Poster and Reply Card	.837	.485
Instate Contacts	.317	1.000
Out of State Contacts	.885	.414

The total number of teacher recruitment practices used was determined by counting the yes responses to survey items 1-86, odd numbered items only. The t-test was used to determine if a significant difference between small and large school districts existed, testing at the .05 level of confidence. The mean number of teacher recruitment practices used in small districts was 15.8981 and the mean number of teacher recruitment practices in large districts was 20.2162. The F value was 1.32 and the 2-tailed probability was .191, indicating the variances of the 2 groups were similar. The pooled variance estimate was used. The t-value was -4.69, with a 2-tailed probability of .0001.

The null hypothesis was rejected. Results are shown in Table 35.

$H_0$34 There will be no significant difference between rural and urban school districts in the total number of teacher recruitment practices used.

The total number of teacher recruitment practices used was determined by counting the yes responses to survey questions 1-86, odd numbered items only. The t-test was used to determine if a significant difference existed between the rural and urban districts, testing at the .05 level of confidence. The mean number of teacher recruitment practices used in urban districts was 19.7222 and for rural districts, the mean was 16.7813. The F value was 1.33, with a 2-tailed probability of .196, indicating the variances of

Table 35

Total Number of Teacher Recruitment Practices Used in Small and Large School District

Group	Number of Cases	Mean	t-Value	2-tailed Probability
Small	108	15.8981	-4.69	.0001
Large	74	20.2162		

d.f. = 180

the 2 groups were similar. The pooled variance estimate was used. The t-value was 2.87, with a 2-tailed probability of .005. The null hypothesis was rejected. Results are shown in Table 36.

$H_0$35 There will be no significant difference between districts experiencing teacher shortages and those not experiencing teacher shortages in the total number of teacher recruitment practices used.

The total number of teacher recruitment practices used was determined by counting the yes responses to survey questions 1-86, odd numbered items only. The t-test was used to determine if a significant difference between districts with teacher shortages and those with no teacher shortage existed for the total number of recruitment

Table 36

Total Number of Teacher Recruitment Practices Used in Rural and Urban School Districts

Group	Number of Cases	Mean	t-Value	2-tailed Probability
Small	54	19.7222	2.87	.005
Large	128	16.7813		

d.f. = 180

practices used. The mean for districts with teacher shortage conditions was 18.8495 and for districts with no shortage the mean was 16.405. The F value was 1.21, with a 2-tailed probability of .366, indicating the variances of the 2 groups were similar. The pooled variance estimate was used. The t-value was 2.60 and the 2-tailed probability was .010. The null hypothesis was rejected. Results are shown in Table 37.

Presentation and Discussion of Data Related to Questions

Several questions were important in the development of this study. These were stated in Chapter One. In the following paragraphs, the questions are repeated and data related to the questions are explored.

Table 37

Total Number of Teacher Recruitment Practices Used in Districts With Teacher Shortage and Those With No Shortage

Group	Number of Cases	Mean	t-Value	2-tailed Probability
Small	93	18.8495	2.60	.010
Large	89	16.4045		

d.f. = 180

Does a teacher shortage exist? Respondents from school districts were asked to indicate whether the district was experiencing difficulty filling vacancies or if the district had experienced little or no teacher shortage conditions. Of the 182 respondents, 93, or 51.1%, indicated difficulty filling positions.

An extension of this question would be to determine how districts defined teacher shortage or difficulty filling vacancies. School districts were asked to indicate from 21 endorsement or certification areas those for which shortage conditions or difficulty filling vacancies had been experienced. The total number of endorsement areas of shortage reported by each district was calculated by counting the yes responses to survey items 87 to 107. The t-test was used to determine if the mean number of endorsement areas of shortage cited by the two groups, those self-identified as experiencing shortage conditions and those self-identified as having no shortage, differed significantly, with significance at the .05 level. The mean number of endorsement areas of shortage reported by those identified as experiencing a teacher shortage was 5.4946. The mean number of endorsement areas of shortage cited by those identified as having no shortage was 3.0562. The F value was 1.47, with a 2-tailed probability of .071, indicating the variances of the 2 groups were similar. The t-value was 6.79, with a 2-tailed probability of .0001.

Thus, districts self-identified as experiencing teacher shortage conditions reported a significantly higher number of endorsement areas of shortage than did districts self-identified as experiencing no shortage conditions. Results are shown in Table 38.

Total number of endorsement areas of shortage were also analyzed using the other two dichotomous variables considered throughout this study. For small and large school districts, a significant difference was found using the t-test at the .05 level of significance. The mean number of endorsement areas of shortage cited by small districts was 3.7870 and that for large districts was 5.0541. The pooled variance estimate was used, yielding a t-value of -3.18 and a 2-tailed probability of .002.

Table 38

Number of Endorsement Areas of Shortage Cited by Districts With Teacher Shortage and Those With No Shortage

Group	Number of Cases	Mean	t-Value	2-tailed Probability
Shortage	93	5.4946	6.79	.0001
No Shortage	89	3.0562		

d.f. = 180

Forrural and urban districts, no significant difference was found using the t-test at the .05 level of significance. The mean number of endorsement areas of shortage cited by urban districts was 4.6296 and that for rural districts was 4.1641. The pooled variance estimate was used. The t-value was 1.06 and the 2-tailed probability was .290. Thus, size of the district, being either large or small, seemed to be a better indicator of number of endorsement areas of shortage than did location, as both urban and rural districts reported a similar number of endorsement areas of shortage. Data are shown in Tables 39 and 40.

A related question was how large and small school districts in the southeast are affected by teacher supply and demand. Though partially answered in the preceding paragraphs, through data which indicated that large districts are more likely to experience a greater number of endorsement areas of shortage than are small districts, the question can also be explored in terms of the relationships that exist among the three dichotomous variables considered throughout the study. Districts were selected for the study on the basis of size, either small or large. A total of 182 of the selected districts responded to the survey. District size was one of the three dichotomous variables and was, as indicated, the basis for selection for inclusion in the study. Of 182 respondents, 74 were large and 108 were small. Another of the three dichotomous variables was

Table 39

Number of Endorsement Areas of Shortage Cited by Small and Large School Districts

Group	Number of Cases	Mean	t-Value	2-tailed Probability
Small	108	3.7870	-3.18	.002
Large	74	5.0551		

d.f. = 180

Table 40

Number of Endorsement Areas of Shortage Cited by Rural and Urban School Districts

Group	Number of Cases	Mean	t-Value	2-tailed Probability
Urban	54	4.6296	1.06	.290
Rural	128	4.1641		

d.f. = 180

location, whether rural or urban. Of the 182 responding districts, 128 were located in rural areas and 54 in urban areas. The third dichotomous variable was district experience with teacher supply and demand conditions, with the district identified as either experiencing teacher shortage conditions or experiencing no shortage. Respondents were more evenly divided on this variable, with 93 districts reporting teacher shortage conditions and 89 reporting no shortage. In Table 40, the 182 responding districts have been categorized into 8 exclusive groups on the basis of size, location, and experience with teacher supply and demand in order to explore the relationship between the 3 dichotomous variables. Of districts reporting a teacher shortage, 1 was small and urban, 50 were small and rural, 28 were large and urban, and 14 were large and rural. Of districts reporting no shortage, 7 were small and urban, 50 were small and rural, 18 were large and urban, and 14 were large and rural. Data are shown in Table 41.

Do teacher recruitment practices vary due to changing patterns of teacher supply? The presentation of data related to Hypothesis 23 and presented in tabular form in Tables 24 and 25 is relevant to this question. Hypotheses 24-32 and Hypothesis 35 are related. Districts experiencing teacher shortage conditions used a significantly greater number of internal, external, and total teacher recruitment practices than districts without shortage. There was no

Table 41

Further Comparison of 182 Responding School Districts

Category	n With Shortage	n Without Shortage	Total
Small Urban	1	7	8
Small Rural	50	50	100
Large Urban	28	18	46
Large Rural	14	14	28
Total	93	89	182

significant difference between districts with reported shortage and with no shortage in the number of financial incentive teacher recruitment practices used.

Respondents were asked to describe the types of certification held by new recruits. Certification of new recruits was described in the following ways: all recruits held full, regular certification; some new recruits held emergency certification; some new recruits held alternative certification; some new recruits held emergency certification and some new recruits held alternative certification. Districts reporting shortage and those with no shortage were compared to determine if a significant difference existed for the variable, certification of new

recruits. The chi-square was used. Of the 93 districts with shortage conditions, 32.3% reported hiring only new recruits with full certification; 37.7% reported some new recruits with emergency certification; 39.0% reported hiring some recruits with alternative certification; and 1% reported both emergency and alternative certification. Of the 89 districts with no shortage conditions, 73.0% reported hiring only those with full certification; 12.4% reported some new hires with emergency certification; 13.5% reported some new recruits with alternative certification; and 1.1% reported some emergency and some alternative certification. The difference was significant at the .05 level, with a phi value of .41346 and an approximate significance of .000001. A significantly greater number of districts with teacher shortage conditions reported that some new hires held emergency or alternative certification. Data are shown in Table 42.

Which teacher recruitment practices are widely used in the southeast? To answer this question, the number of yes responses to survey questions 1-86, odd numbered items only, was tallied. The number of districts using each of the 43 teacher recruitment practices used in the survey is reported in Table 41. Items are listed in decreasing order, with those cited most frequently listed first. Sixteen of the 43 teacher recruitment practices included in the survey were cited by 50% or more of the respondents. In descending

Table 42

Types of Certification Held by New Recruits in Districts With Shortage and Districts With No Shortage

Types of Certificates Reported by Districts	% n Shortage	% n No Shortage	n/% Total N
Only Full Certification	32.3	73.0	95/52.2
Some Emergency	37.7	12.4	46/25.3
Some Alternative	29.0	13.5	39/21.4
Both Some Emergency and Some Alternative	1.0	1.1	1/1.1
Phi Value .41346			
Approximate Significance* .000001			

*Pearson chi-square probability

d.f. = 3

order, these were: having a current teacher add certification in a shortage area; contact with placement offices of in-state colleges; contact with other districts; posting vacancies in the district; campus visits; asking a current teacher to recommend prospects; descriptive brochure; job fair; State Department of Education contacts; bringing prospect to district for visit; posting vacancies in the community; increasing salary for all teachers; contact with out of state college placement offices; in-

state metropolitan newspaper advertising; and assigning an individual to conduct tours. Responses to all 43 items are shown in Table 43.

Which teacher recruitment practices were considered effective? In an effort to gather data to answer this question, respondents were asked to list the five recruitment practices which the district had found to be most effective. These were assigned a rank from one to five, with five meaning most effective and one meaning least effective of the five cited as effective. These responses were tallied and included a number of items not part of the survey. Results are shown in Table 44.

A total of 36 teacher recruitment practices were cited as among the 5 most effective by 2 or more school districts. Of the 36 recruitment practices cited as among the 5 most effective, 9 were internal recruitment practices from the survey, 13 were external recruitment practices from the survey, 4 were classified as financial incentives, and 10 were added by respondents. The 10 practices listed as most effective, listed in descending order, were: use of in-state college placement offices; campus visits; job fairs; out of state placement offices; in-state metropolitan newspaper advertising; contact with other districts; salary; timely, courteous communications; State Department of Education contacts; and informal networking, or as termed by many respondents, word of mouth. Complete results showing all

Table 43

Recruitment Practices Surveyed and Number of Districts Using Each

Recruitment Practice	n Using	Recruitment Practice	n Using
Teacher Add Certification	169	Teacher as Recruiter	64
Instate College Placement Office	163	FTA	64
Other District Contacts	154	Memorabilia	54
Posting in District	151	Out of State Metro Newspaper Ad	54
Campus Visits	148	Trade Journal Ad	52
Teacher Recommend Prospects	140	Merit Pay	49
Descriptive Brochure	140	Other Relocation Assistance	47
Job Fair	133	Sabbatical Leave	46
State Department of Education Contacts	129	Multidistrict Coalition	43
Instate Contacts	127	Out of State Contacts	42
Brought Prospect to District for Visit	116	Increase Transfer Experience	40
Posted in Community	115	Poster and Reply Card	37
Increase Salary/All	108	Internships, Scholarships	27
Out of State College Placement Offices	107	TV Video Ad	23
Instate metro News Ad	106	Shortage Bonus	17
Individual to Conduct Tours	92	Interest Rate Break for New Teachers	15
		Recruiting Internationally	14

Table 43 (Cont'd)

Recruitment Practices Surveyed and Number of Districts Using Each

Recruitment Practice	n Using	Recruitment Practice	n Using
Nonpracticing Prospects	90	Consultant	10
Reimbursed Graduate Tuition	85	Radio Ad	8
Long Range Plans	82	Reimbursed Moving Costs	7
Ed. Association	73	Rent Subsidy	4
Increase Salary/New	65	New Recruits Bonus	2

N possible = 182

Mean Citations = 74.6977

items cited by two or more districts as among the 5 most effective teacher recruitment practices are given in Table 44. Table 44 includes the rank of each recruitment practice cited, the number citing, and the effectiveness sum or, sum of rankings, 5-1, assigned by respondents.

What is the ratio of applications per vacancy and does this vary among the districts? The application ratio was

Table 44

Effectiveness Ratings for Recruitment Practices Listed by Respondents as among 5 Most Effective

Rank	Recruitment Practice	n Citing	Effectiveness Sum
1	Instate College Placement Offices	90	324
2	Campus Visits	62	245
3	Job Fair	62	208
4	Out of State Placement Offices	49	149
5	Instate Metro Newspaper Ad	45	144
6	Other District Contacts	35	91
7	Salary	19	73
8	Courteous Communications	20	68
9	State Department of Education Contacts	26	68
10	Informal Networking	22	66
11	Reputation	16	63
12	Teacher Recommend Prospects	24	61
13	Posting in District	17	58
14	Teacher Add Certification	19	55
15	Out of State Metro Newspaper Ad	14	40
16	Descriptive Brochure	16	40
17	Teacher as Recruiter	10	39
18	Nonpracticing Prospects	11	38
19	Brought for Visit	8	33

Table 44 (Cont'd)

Effectiveness Ratings for Recruitment Practices Listed by Respondents as among 5 Most Effective

Rank	Recruitment Practice	n Citing	Effectiveness Sum
20	Referral Agency	11	32
21	Local Newspaper Ad	10	30
22	Internships, Scholarships	11	28
23	Multidistrict Coalition	8	28
24	Fringe Benefits	10	28
25	Trade Journal Ad	11	28
26	FTA	7	26
27	Instate Contacts	11	26
28	Location	7	25
29	Walk-ins	5	17
30	Early Contracting	4	15
31	Reimburse Graduate Tuition	5	11
32	Long Range Plans	3	11
33	Hotline	3	9
34	Poster and Reply Card	2	8
35	Individual Tour Conductor	2	8
36	Recruitment Team	2	5

determined by dividing the reported number of applications on file by the number of vacancies for those districts reporting vacancies. The mean number of applications pervacancy for all districts for which the statistic could be calculated was 24.0053:1. The t-test was used to analyze the data in terms of relationship to the three dichotomous variables used throughout the study. Results are discussed below and shown in Table 45.

When large and small school districts were compared the mean number of applications per vacancy in small districts was 30.5952 and that for large districts was 14.6614. Using the t-test at the .05 level of significance, the F value was

Table 45

Application Ratio* for Three Dichotomous Variables

Group	Number of Cases	Mean	t-Value	Degrees of Freedom	2-tailed Probability
Small	95	30.5952	3.67	159.88	.0005
Large	67	14.6614			
Rural	113	28.5403	-4.10	158.38	.0005
Urban	49	13.5471			
Shortage	82	16.5889	-3.29	121.00	.001
No Shortage	80	31.6071			

*Applications per vacancy

1.91 with a 2-tailed probability of .006, thus the separate variance estimate was used. The t-value was 3.67, with a 2-tailed probability of .0005. Thus, a significant difference did exist between large and small districts for the variable, application ratio.

When urban and rural districts were compared, the mean number of applications per vacancy in rural districts was 28.5403 and for urban districts the mean was 13.5471. Using the t-test at the .05 level of significance, the F value was 6.78, with a 2-tailed probability of .0005, thus the separate variance estimate was used. The t-value was -4.10 and the 2-tailed probability was .0005. A significant difference did exist between rural and urban school districts for the variable, application ratio.

When districts experiencing teacher shortages were compared to districts not experiencing teacher shortages, the mean number of applications per vacancy in districts with teacher shortage conditions was 16.5889 and that for districts with no shortage was 31.6071. Using the t-test at the .05 level of significance, the F value was found to be 3.41, with a 2-tailed probability of .0005, thus the separate variance estimate was used. The t-value was -3.29, with a 2-tailed probability of .001. A significant difference did exist between districts experiencing teacher shortage conditions and those with no shortage for the variable, application ratio.

The application ratio varied among the responding districts from a low of 1.4 per vacancy to a high of 166.67 per vacancy, a figure which was calculated for 2 districts. The mean for all districts was 24.0053 and that for districts experiencing no shortage was 31.6071.

The title of the survey respondent and of the chief teacher recruitment officer varied on the basis of district size and location. In 46.3% of small school districts, the superintendent was the chief teacher recruitment officer and was the survey respondent for 57.4% of small districts. In 74.1% of large districts, the title given to the chief teacher recruitment officer was either personnel director or assistant, associate, or deputy superintendent for personnel. In 64.9% of large districts, the survey was completed by either the personnel director or the assistant, associate, or deputy superintendent for personnel. In 36.9% of rural districts, the superintendent was chief recruitment officer. This was true in only 9.3% of urban districts. The personnel director was chief teacher recruitment officer in 42.6% of urban districts and 24.2% of rural districts. The survey was completed by the superintendent in 46.0% of responding rural districts and in only 13% of urban districts. The survey was completed by either the personnel director or the assistant, associate, or deputy superintendent for personnel in 51.8% of urban districts and 28.9% of rural districts.

CHAPTER 5

This chapter contains a summary, findings, summary and discussion of findings, conclusions, and recommendations based on the review of literature and analysis of data.

Summary

The purposes of this study were to determine the adequacy of teacher supply and to identify teacher recruitment practices used in large and small school districts in six southeastern states and to elicit from respondents ratings of the importance and effectiveness of the various teacher recruitment practices. The data were analyzed in relationship to three dichotomous variables that could be used to group the respondents. These variables were: district size, small or large, which was the basis for selection for inclusion in the study; district location, rural or urban; and district experience with teacher supply, whether the district was experiencing either teacher shortage conditions or no shortage.

The study was conducted during the 1991-92 academic year in six southeastern states, Florida, Georgia, North Carolina, South Carolina, Tennessee, and Virginia, with data collection occurring during late summer and Fall, 1991. The entire population of 362 districts, 229 small and 133 large districts, was surveyed. Responses were received from 182 of the selected districts, for a return rate of 50.27%.

The pilot study was conducted among medium size school districts in Tennessee, those enrolling from 2,500-10,000 students. Those responding to the pilot study rated questionnaire items as acceptable and made suggestions for revision. The primary change suggested was format, with the notation that the instrument was just too long. As a result, the survey instrument, when reduced in size and professionally printed, was in the form of a single leaflet, 8 1/2 by 11 inches, that, when folded, included 4 full pages of questions. The return rate for the pilot study was only 36% and that for the study using the reduced format was 50.27%. A review by a panel of experts was conducted for the purposes of establishing content validity. Panel members found the instrument to be acceptable, with some suggestions for changes in instructions which were incorporated into the survey instrument.

The data for the study were collected using a questionnaire developed by Roger L. Nall (1982) and revised by the researcher after a review of the literature. The revised instrument was strengthened through a pilot study and review by a panel of experts. Respondents to the survey were asked to indicate if 43 specific teacher recruitment practices were used in the district and to rank the importance of each on a scale of 1 to 5, with 1 meaning of no importance and 5 meaning of great importance. Respondents were asked to indicate from 21 certification or

endorsement areas any for which the district was experiencing difficulty filling vacancies. Respondents were further asked to describe the district as rural or urban, as experiencing teacher shortage conditions or no shortage, and were asked to provide specific demographic data, for example, enrollment and number of teacher vacancies. Finally, respondents were asked to list the five most effective teacher recruitment practices. Statistical techniques used to analyze the data were the t-test; the chi-square, for which the phi coefficient was reported so scores would have a standard appearance and the Pearson chi-square probability was displayed; and the Komolgorov-Smirnov two sample test. Significance was tested at the .05 level of confidence.

Findings

Data regarding teacher recruitment practices in six southeastern states were analyzed in terms of relationships to three dichotomous variables. These reflected district size, location, and experience with teacher supply and demand. The 182 responding districts could have been categorized definitively into 8 groups: large rural with shortage; large rural without shortage; large urban with shortage; large urban without shortage; small rural with shortage; small rural without shortage; small urban with shortage; and small urban without shortage. This reclassification for analysis was not done. One of the

eight categories, small urban with shortage, contained only one case. Another category, small urban without shortage, contained only seven cases, for a total of eight small urban respondents. Data were grouped for analysis in terms of the three dichotomous variables.

A number of questions were explored and 35 null hypotheses were tested. Of these null hypotheses, hypotheses 2, 4, 6, 13, 17, 23, 26, 28, and 33-35, a total of 11, were rejected. Hypotheses 1, 8, 9, 10, 12, 15, 19, 20-22, 24, 25, 27, and 29-32, a total of 17, were retained.

Several hypotheses were broad in scope, covering the use or importance of 10 or more specific teacher recruitment practices. For these seven hypotheses, when it was determined that significant differences existed for a number of the specific teacher recruitment practices, the null hypothesis was evaluated item by item. Hypothesis 3 was rejected for 8 of the 13 items and was retained for 5. Hypothesis 5 was rejected for 6 of 10 items and was retained for 4. Hypothesis 7 was rejected for 11 of 20 items and was retained for 9. Hypothesis 11 was rejected for 7 of 20 items and was retained for 13. Hypothesis 14 was rejected for 6 of 13 items and was retained for 7. Hypothesis 16 was rejected for 4 of 10 items and was retained for 6. Hypothesis 18 was rejected for 11 of 20 items and was retained for 9.

Summary and Discussion of Findings

The development of the study was guided by several questions presented in Chapter One and restated and explored in Chapter Four. The following discussion has also been framed in relationship to the study questions. When a probability of less than or equal to .05 was found through analysis, the difference was determined to be significant.

Does a teacher shortage exist? This question was an outgrowth of the review of literature, in which a number of authors, including Darling-Hammond (1984), Jensen (1987), Mcnergney and Haberman (1989), Nall (1982), Rothman (1986), Schmidt (1990), and Wise et al. (1987), indicated that large or small school districts and rural or urban school districts were likely to experience teacher shortage conditions.

Large and small school districts in six southeastern states were surveyed and respondents were asked to describe the district as rural or urban and with or without teacher shortage conditions. Of the 182 respondents, 93, or 51.1% of the total, were described as experiencing teacher shortage conditions. Large districts were slightly more likely to report shortage conditions than small, 56.76% vs. 47.22%. For rural districts, 50% reported shortage conditions. When urban districts responses were examined, 53.7% reported teacher shortage conditions. District size was a better indicator of shortage conditions than was

district location, with the following exception. A total of 8 small urban districts responded to the survey and only 1 of these reported teacher shortage conditions. Districts most likely to experience teacher shortage conditions were large urban and large and small rural. Of districts surveyed, those least likely to experience shortages were small urban.

Districts that reported teacher shortage conditions reported a significantly higher number of endorsement areas of shortage. Districts with teacher shortages reported a mean of 5.4946 endorsement areas of shortage and those with no shortage conditions cited a mean of 3.0562 endorsement areas of shortage. This difference was significant at the .05 level.

Districts reporting teacher shortage conditions were significantly more likely to employ new recruits with either emergency or alternative certification. Use of these two nonstandard certifications was reported by 67.7% of districts with shortages and by only 27.0% of districts with no shortage. This difference was significant at the .05 level.

Do teacher recruitment practices in the southeast vary with changing patterns of teacher supply and demand? Those districts with reported shortage conditions used a significantly greater number of internal, external, and total teacher recruitment practices. The number of

financial incentive teacher recruitment practices did not differ significantly from districts with shortages to districts with no shortage.

Districts with reported teacher shortages had a per pupil budget for teacher recruitment that was significantly higher than such budgets in districts without shortage conditions when an outlier was removed from the calculations. One small rural district had a per pupil budget for teacher recruitment 329% greater than any other calculated. This single outlier so affected variance and standard deviation that any significance present was masked. When the outlier was removed, a significant difference between districts with teacher shortage and those with no teacher shortage was found. Analysis with the chi-square found a significant difference. Districts reporting shortages had a higher per pupil teacher recruitment budget than did those with no shortage. Districts with no shortage were significantly more likely to report a teacher recruitment budget of $0.00.

Districts with teacher shortage conditions differed significantly from those with no shortages in the use of four teacher recruitment practices. Descriptive brochures were used more often by districts with shortages. The use of in-state metropolitan newspaper advertising, contact with out of state college and university placement offices, and the use of imprinted memorabilia in recruitment were

significantly greater in districts with shortages. Ratings of the importance of specific teacher recruitment practices also differed significantly for four items. These items, rated as more important in districts with shortages than in those without shortage, were: merit pay; the importance of contact with in-state college and university placement offices; the importance of contact with out of state college and university placement offices; and campus visits.

Teacher recruitment practices also varied when grouped by one of the two remaining dichotomous variables for analysis. These two were district size and district location. Differences in teacher recruitment practices on the basis of size and location were explored.

When school districts were compared on the basis of size, a number of significant differences were found between large and small school districts in the use and importance of teacher recruitment practices. Large school districts used a significantly greater total number of teacher recruitment practices, 20.2162, than did small districts, with a mean of 15.8981.

The mean number of financial incentive teacher recruitment practices used in large school districts was 3.5270 and that for small districts was 2.3241. This difference was significant. The use of the following financial incentive teacher recruitment practices was significantly greater in large districts than in small:

interest rate breaks for new teachers; rent subsidies; reimbursed moving costs; other relocation assistance; sabbatical leave; increased salary for new and for all teachers; and the use of internships and scholarships.

The mean number of internal teacher recruitment practices used in large school districts was 6.5541 and that for small districts was 5.6204. This difference was significant. The use of 4 specific internal teacher recruitment practices was significantly greater in large districts than in small. These were: use of teacher as recruiter; descriptive brochure development and use; involvement of a future educators groups; and the development of long range plans. Use of two items, bringing the prospect into the district for a visit and posting vacancies in the district, was significantly greater in small districts than in large.

The mean number of external teacher recruitment practices used in large districts was 10.1351 and that for small districts was 7.9537. This difference was significant. The use of specific external teacher recruitment practices was found to be significantly greater in large school districts for nine items. These were: out of state metropolitan newspaper advertising; trade journal advertising; television and video advertising; contact with out of state college and university placement offices; campus visits; job fairs; imprinted memorabilia; recruitment

poster with attached postal reply inquiry card; and general reliance upon out of state contacts. The use of one item, general reliance upon in-state contacts, was found to be significantly greater in small districts than in large.

The supply of four teachers in certification or endorsement areas was found to be less than the number needed to meet demand in large school districts more often than in small. Again, the difference was significant. The areas were special education, vocational trades, primary(K-2), and elementary grades 3-5. Very few districts, all large, actually cited shortages in elementary grades.

Significant differences in the reported importance of specific teacher recruitment practices were found for a total of 11 items. For 10 of these items, a significantly higher rating of importance was assigned by large districts than by small. These were: interest rate breaks for new teachers; descriptive brochures; involvement of future educators group; development of long range plans; trade journal advertising; contact with in-state college and university placement offices; contact with out of state college and university placement offices; campus visits; job fairs; and imprinted memorabilia. General reliance upon in-state contacts was rated of significantly greater importance by small districts than by large.

When school districts were compared on the basis of location, a number of significant differences between rural and urban school districts for the use and importance of specific teacher recruitment practices were found. The mean number of teacher recruitment practices used in urban districts was 19.7222 and that for rural districts was 16.7813. This difference was significant at the .05 level.

Urban school districts used a mean of 3.6296 financial incentive teacher recruitment practices and rural school districts used a mean of 2.4688. This difference was significant. When the use of specific financial incentive teacher recruitment practices in rural and urban districts was examined, a significant difference was found for 7 of the 13 items. The use of the following was significantly greater in urban districts: payment of a bonus to new recruits; rent subsidies; reimbursed moving costs; sabbatical leave; increased transferrable experience; increased salary for new; and increased salary for all.

There was no significant difference between rural and urban school districts when the total number of internal teacher recruitment practices used was analyzed. When the use of specific internal teacher recruitment practices in rural and urban districts was analyzed, significant differences were found for four items. The use of descriptive brochures, involvement of future educators groups, and the development of long range plans was

significantly greater in urban districts. Posting vacancies in the district, although widely used, was used by significantly more rural than urban districts.

The mean number of external teacher recruitment practices used in urban school districts was 9.8519 and that for rural districts was 8.4141. This difference was significant. When the use of specific external teacher recruitment practices in rural and urban districts was compared, significant differences were found for 11 of the 20 items. The use of the following was found to be significantly greater in urban districts: out of state metropolitan newspaper advertising; trade journal advertising; television and video advertising; contact with out of state college and university placement offices; campus visits; job fairs; recruiting internationally; imprinted memorabilia; and general reliance upon out of state contacts. The use of two items was found to be significantly greater in rural than in urban districts. These items were contact with other districts and general reliance upon in-state contacts.

The subject or endorsement areas of teacher shortage in rural and urban areas were compared. Urban districts were significantly more likely to report shortages in special education, although such shortages were widespread; vocational trades areas; and a shortage of primary teachers, kindergarten through second grade. Rural areas were

significantly more likely to report shortages of secondary teachers. Table 9 should be analyzed to determine specific subject areas of secondary endorsement shortage.

The ratings of importance assigned to specific teacher recruitment practices by rural and urban districts were compared. Significant differences were found for seven items, all rated as more important by urban districts. These were: development and use of a descriptive brochure; involvement of a future educators group; the development of long range plans; contact with out of state college and university placement offices; campus visits; job fairs; and imprinted memorabilia.

Although data were analyzed in terms of relationships to three dichotomous variables and were not analyzed in terms of the eight descriptive categories that existed, similarities were identifiable when use citations and importance ratings for specific teacher recruitment practices were compared across the three dichotomous variables. Specific teacher recruitment practices for which significant differences were common to two or more of the dichotomous variables were found.

No common significant differences were found for specific financial incentive teacher recruitment practices for all three dichotomous variables. Common or parallel significant differences were found when rural and urban districts and large and small districts were compared for

five financial incentives. Use of all five was cited significantly more often by urban districts and by large districts than by rural districts and small districts. These five were: rent subsidies; reimbursed moving costs; sabbatical leave; increased salary for new teachers; and increased salary for all teachers.

When the category of internal teacher recruitment practices was examined, the use of descriptive brochures was cited by a significantly greater number of districts with shortages than by districts without, by urban rather than rural districts, and by large rather than small districts. The use of future educators groups and the development of long range plans were cited more often by large districts and urban districts than by small districts and rural districts. Small districts and rural districts cited the use of posting vacancies in the district significantly more often than did large districts and urban districts.

The greatest number of similarities across the three dichotomous variables was found for the category, external teacher recruitment practices. The use of out of state college and university placement offices and the use of imprinted memorabilia were cited significantly more often by large districts than by small, by urban districts than by rural, and by those with teacher shortages than by those without shortage conditions. For seven teacher recruitment practices, significant differences were common to two of the

dichotomous variables. Six of these seven external teacher recruitment practices were cited significantly more often by large districts and by urban districts than by small districts and by rural districts. These six were: the use of out of state metropolitan newspaper advertisements; trade journal advertisements; television and video advertising; campus visits; job fairs; and general reliance upon out of state contacts. General reliance upon in-state contacts was cited significantly more often by small districts and rural districts than by large districts and urban districts.

When ratings of importance assigned to specific teacher recruitment practices were examined, significance was found for the importance of out of state placement offices and for the importance of campus visits across the three dichotomous variables. The importance of these items was rated significantly higher by large districts than by small, by urban districts than by rural, and by districts with teacher shortage conditions than by those with no teacher shortage. Significant differences were found for the ratings of importance assigned to three additional teacher recruitment practices across two of the three dichotomous variables. Descriptive brochures, involvement of future educators groups in recruitment, and the development of long range plans for teacher recruitment were rated as more important by a significantly greater number of large districts and urban districts than by small districts and rural districts.

A total of 43 specific teacher recruitment practices were included in the survey. All of these recruitment practices were used by two or more school districts. The mean number of use citations for each teacher recruitment practice was 74.69767. The most frequently cited teacher recruitment practice was district assistance to a current teacher in order to add certification in a shortage area, a practice used by 169, or 92.9%, of the 182 responding districts. This finding was in contrast to the results of a survey conducted by American School Board Journal, in which only 1% of respondents selected this option as a preferred means of addressing teacher shortage conditions ("Finding: Higher Salaries," 1985). Use of 16 of the teacher recruitment practices was reported by 50% or more of respondents. This information was displayed in Table 43.

Endorsement areas of teacher shortage were reported by respondents. Widespread shortages were reported for a number of endorsement areas. Shortages of special education teachers were reported by 81.3% of respondents and shortages of teachers of foreign languages were cited by 51.6% of respondents. Approximately 33% of respondents reported shortages of counselors and/or psychologists, science teachers, school library media personnel, bilingual/English as a Second Language/English for Speakers of Other Languages teachers, and math teachers.

Respondents were asked to list the five most effective teacher recruitment practices, with the most effective

listed first. Effectiveness ratings were totaled to develop an effectiveness sum for the 36 teacher recruitment practices cited by two or more school districts as among the five most effective. The teacher recruitment practice rated as most effective was contact with in-state college and university placement offices, followed by campus visits, job fairs, contact with out of state college and university placement offices, and in-state metropolitan newspaper advertisements. A complete listing of effectiveness ratings for the 36 teacher recruitment practices cited as among the five most effective by two or more school districts was developed. Ten of the 36 practices cited as most effective had not been included in the survey items and were added by respondents.

The application ratio, number of applications per vacancy, was calculated. The mean number of applications per vacancy for all respondents for which the statistic could be calculated was 24.0053. The application ratio was analyzed for the three dichotomous variables and a significant difference was found for each. The application ratio was lower, indicating a lower supply of applicants, among large districts, urban districts, and among districts with teacher shortage conditions.

Conclusions

As a result of the findings, the following conclusions were drawn concerning teacher recruitment practices and

teacher supply and demand conditions in six southeastern states.

1. Large and small public school districts in six southeastern states, Florida, Georgia, North Carolina, South Carolina, Tennessee, and Virginia, have experienced teacher shortage conditions.

2. District size is a slightly better indicator of the adequacy of the teacher applicant pool, and thus, teacher supply, than is district location.

3. A number of subject areas of endorsement or teacher certification are in seriously short supply throughout the southeast.

4. Subject areas of endorsement or teacher certification reported as shortage areas in the southeast are similar to areas of shortage reported nationally.

5. A broad range of teacher recruitment practices is in use throughout the southeast.

6. Large school districts use a greater number and a broader range of teacher recruitment practices than small districts.

7. Broad teacher recruitment programs appear to be reactionary, that is, recruitment programs are expanded when teacher shortage conditions exist.

8. Districts experiencing teacher shortage conditions place a greater emphasis upon teacher recruitment practices designed to "cast a broader net," with greater use of

advertising and other recruitment practices covering a broader geographic area.

9. Small school districts place greater emphasis upon internal and in-state teacher recruitment practices.

10. An application ratio greater than or equal to approximately 30 per vacancy was characteristic of districts reporting no shortage conditions.

11. The most widely used teacher recruitment practice, assisting a current teacher to add certification in a shortage area, was designed to address specific local need to fill positions in shortage areas.

12. Teacher recruitment programs are common throughout the southeast and teacher recruitment funds are designated in many local school district budgets.

13. Large school districts and urban districts make greater use of and assign greater importance to long-range recruitment practices, including involvement of future educators groups and development of long range plans for teacher recruitment.

14. Vacancies in specific subject areas of endorsement or certification commonly described as shortage areas were difficult to fill even in districts citing no teacher shortage.

Recommendations

The following recommendations for teacher recruitment programs and for further research are made.

1. School districts should consider the allocation and designation of funds specifically for teacher recruitment purposes.

2. School districts should consider the use of long range strategies for teacher recruitment, including the development of long range plans for teacher recruitment and the formation or sponsorship of future educators groups.

3. School districts should continue to use a broad range of teacher recruitment practices and should be afforded the opportunity to experiment with new recruitment practices.

4. A mean application ratio of 30 applications per vacancy should be regarded by school districts as minimal, as a ratio equal to or greater than this was characteristic of districts reporting no shortage conditions.

5. Teachers newly hired should be surveyed by the school district to gather data about the recruit's source of information about the district and the specific vacancy.

6. Teachers newly hired should be surveyed by the district to gather data about the recruit's reasons for accepting employment in the district.

7. School districts should gather data to be used in the evaluation of recruitment programs and of the effectiveness of the various recruitment practices used.

8. Evaluation of the district's recruitment program should include a means to determine and compare the overall

quality of the applications resulting from the various recruitment practices.

9. Teacher recruitment practices specifically designed to attract applications from members of minority groups were beyond the scope of this study. A shortage of qualified minority candidates was reported in the literature. A study of teacher recruitment practices which effectively attract and retain minorities could be of value to school districts.

10. Further research incorporating the 43 teacher recruitment practices used in this study and the additional 10 practices cited by 2 or more respondents should add to the teacher recruitment knowledge base and would be of value to those planning and evaluating teacher recruitment programs.

11. Further research covering a broader geographic area could provide greater insight into the synergistic interaction of district size, district location, and district experiences with teacher supply and demand and the relationship of these to teacher recruitment practices.

REFERENCES

References

Anschutz, J. M. (1987). Conditions influencing recruitment and retention of teachers in rural schools. Dissertation Abstracts International, 48, 782A.

Bateman, C. F. (1986). Want superstar teachers? Scout for talent and recruit like crazy. The American School Board Journal, 173(6), 27.

Beck, M. (1988, October 17). Back to the classroom. Newsweek, pp. 74-76.

Berry, B., & Ginsberg, R. (1990). Creating lead teachers: From policy to implementation. Phi Delta Kappan, 71, 616-621.

Bolton, D. L. (1973). Selection and evaluation of teachers. Berkley, CA: McCutchan Publishing.

Borg, W. R., & Gall, M. D. (1983). Educational research: An introduction (4th ed.) New York: Longman.

Bowen, E. (1985, July 22). And now, a teacher shortage. Time, p. 63.

Bradley, A. (1990, January 17). Elite-college alumni hatch plan to recruit teachers. Education Week, p. 7.

Burnside, J. (1987). Enrollments are up, and our teacher recruiters are on the road. The American School Board Journal, 173(1), 28-29.

Carnegie Foundation for the Advancement of Teaching. (1987, March/April). Prospective teachers: Career choices. [Change: Trendlines]. Change, pp. 31-34.

Castetter, W. B. (1986). The personnel function in educational administration (4th ed.) New York: Macmillan.

Chapman, D. M., & Green, M. S. (1986). Teacher retention: A further examination. Journal of Educational Research, 79, 273-279.

Clayton, M. (1987, June). Pension portability: A start. NEA Today, p. 23.

Crawford, J. H. (1987). Teacher recruitment and retention in a rural school district. Dissertation Abstracts International, 47, 2815A-2816A.

Darling-Hammond, L. (1984). Beyond the commission reports: The coming crisis in teaching. Santa Monica, CA: Rand Corporation.

Darling-Hammond, L. (1988). The futures of teaching. Educational Leadership, 46(3), 4-10.

Edelfelt, R. (1986, Summer). Managing teacher supply and demand. Action in Teacher Education, pp. 31-36.

Finding: Higher salaries will woo teachers. (1985). The American School Board Journal, 172(1), 51.

Grissmer, D. W., & Kirby, S. N. (1987). Teacher attrition: The uphill climb to staff the nation's schools. Santa Monica, CA: Rand Corporation.

Gursky, D. (1989, December). Looking for a short cut. Teacher Magazine, pp. 43-49.

Haberman, M. (1989). More minority teachers. Phi Delta Kappan, 70, 771-776.

Haggstrom, G. W., Darling-Hammond, L., & Grissmer, D. W. (1988). Assessing teacher supply and demand. Santa Monica, CA: Rand Corporation.

Hanes, M. L., & Hanes, M. L. (1986-1987, Winter). A broader perspective for teacher recruitment. Action in Teacher Education, pp. 1-5.

Harris, B. M., McIntyre, K. E. Littleton, Jr., V. C., & Long, D. F. (1985). Personnel administration in education: Leadership for instructional improvement. Boston: Allyn & Bacon.

Jacobson, S. L. (1986/1987). Alternative practices of internal salary distribution and their effects on teacher recruitment and retention. Dissertation Abstracts International, 47, 2827A.

Jensen, M. C. (1987). How to recruit, select, and retain the very best teachers. Eugene, OR: ERIC Clearinghouse on Educational Management. (ERIC Document Reproduction Service No. ED 279 056).

Kean, T. H. (1986). Who will teach? Phi Delta Kappan, 68, 205-207.

LoPresto, R. L. (1986). Recruitment sources and techniques. In J. J. Famularo (Ed.), Handbook of human resources administration (2nd ed.), (pp. 13-1--13-26). New York: McGraw-Hill.

Market forces might end the teacher crunch. (1984). The American School Board Journal, 171(10), 16.

Maryland State Department of Education & Maryland State Board of Education. (1986). Teacher supply and demand in Maryland, 1986-1989. Baltimore, MD: Author. (ERIC Document Reproduction Service No. ED 275 689)

McManus, O. F., & Matthews, K. D. (1986). Psychological considerations in the recruitment of math and science teachers. (ERIC Document Reproduction Service No. 275 544).

McNergney, R., & Haberman, M. (1989, March). Urban districts urgently need teachers. NEA Today, p. 5.

Moody, D. (Ed.) (1989). Patterson's American Education: 1990 Edition, 86. Mount Prospect, IL: Educational Directories, Inc.

Most refreshing consensus: The weighty eighties - A decade in review. (1989, December). NEA Today, p. 4.

Nall, R. L. (1982). Relationships between aspects of personnel recruitment programs and reasons given by teachers for accepting employment in shortage areas. Ames: Iowa State University. Ann Arbor, MI: University Microfilms.

Norusis, Marija J. (1988). SPSS/PC+ V2.0 Base Manual. Chicago: SPSS.

Olson, L. (1987, March 11). Alternative certification routes praised. Education Week, p. 5.

Olson, L., & Rodman, B. (1986, June 18). Growing need, fewer teachers: Everybody is out there bidding. Education Week, pp. 1, 11-13.

Olson, L., & Rodman, B. (1987, June 24). Is there a teacher shortage? It's anyone's guess. Education Week, pp. 1, 14-16.

Olson, L., & Rodman, B. (1987, April 8). Teachers. Education Week, p. 10.

Olson, L., & Rodman, B. (1987, June 3). Teachers. Education Week, p. 9.

Power, J. (1987, June). Breaking $40,000. NEA Today, pp. 4-5.

Query: How to attract the best teachers? (1984). The American School Board Journal, 171(11), 62.

Renner, W. F. (1985). Recruit aggressively and lure top talent to your small school system. The American School Board Journal, 161(3), 36-37.

Rodman, B. (1987, May 20). School-boards group offers guide on teacher supply. Education Week, p. 7.

Rodman, B. (1987, January 14). Teacher shortage is unlikely, labor bureau report claims. Education Week, p. 7.

Rodman, B. (1985, November 20). Teaching's "endangered species:" Minorities said opting out, or being screened out, just when profession "sorely needs" their influence. Education Week, pp. 1, 11, 12.

Roch, T. A. (1986). Emergency certificates, misassignment of teachers, and other "dirty little secrets." Phi Delta Kappan, 67, 725-727.

Rothman, R. (1986, December 17). Teacher shortage a myth, report asserts. Education Week, p. 10.

Rydell, L. H., Gage, B. J., & Colnes, A. L. (1986). Teacher recruitment and retention in Maine. Augusta, ME: 112th Maine Legislature, Office of Policy and Legal Analysis. (ERIC Document Reproduction Service No ED 278 637)

Schmidt, P. (1990, January 17). Teacher shortages and red tape hurt effort to help immigrants, E. D. told. Education Week, p. 19.

Sedlak, M., & Schlossman, S. (1986). Who will teach? Historical perspectives on the changing appeal of teaching as a profession. Santa Monica, CA: Rand Corp.

Snyder, T. D. (1987). Digest of Education Statistics. Washington, D. C.: Center for Education Statistics.

Teacher shortage surveys conflict at NEA convention. (1987, July 5). Johnson City Press, p. 16.

Tennessee becoming fertile ground for teacher recruiters. (1989, April). TEA News, p. 7.

Tifft, S. (1989, Feb. 13). The lure of the classroom. Time, p. 69.

Toch, T. (1990, January 29). Drafting the best and the brightest. U. S. News & World Report, p. 52.

U. S. Bureau of the Census. (1987). Statistical abstract of the United States: 1988. (108 ed.) Washington, D.C.

Van Meter, E. J. (1984). Eight ways to recruit the teachers you want for the jobs you've got. The American School Board Journal, 171(2), pp. 27-28.

Viadero, D. (1990, April 4). Connecticut teacher glut leaves students who must repay loans in the lurch. Education Week, pp. 1, 7.

Watson, W. A. (1980). Practices used by northeast Texas school districts in the recruitment and selection of teachers. (Doctoral dissertation, East Texas State, 1980). Dissertation abstracts International, 41, 495A-496B.

Watts, G. D. (1986). And let the air out of the volleyballs. Phi Delta Kappan, 67, 723-724.

Weaver, W. T. (1983). America's teacher quality problem: Alternatives for reform. New York: Praeger Special Studies.

Wilson, R. (1990, June 27). New organization begins institute to train college graduate for teaching jobs. The Chronicle of Higher Education, p. A32.

Wise, A. E. (1986). Three scenarios for the future of teaching. Phi Delta Kappan, 67, 649-652.

Wise, A. E., Darling-Hammond, L., Berry, B., Berliner, D., Haller, E., Praskae, A., & Schlechty, P. (1987). Effective teacher selection: From recruitment to retention. Santa Monica, CA: Rand Corporation.

Wolff, A. H., & Glaser, H. S. R. (1986). West Germany and other nations can ease the U. S. teacher crunch. The American School Board Journal, 173(9), 27-28.

Young, J. & Elliott, M. (1986). Teacher screening and selection processes: A survey of nine Winnipeg School Divisions. (ERIC Document Reproduction Service No. ED 277093).

Zerfoss, E., & Shapiro, L. J. (1972). The supply and demand of teachers and teaching. Lincoln: University of Nebraska.

APPENDICES

APPENDIX A

Correspondence with Roger L. Nall

1621 Pinehurst Drive, NE #10c
Cedar Rapids, IA 52402
July 1, 1992

Brenda G'Fellers
620 Franklin Street
Johnson City, TN 37604

Dear Brenda:

Thanks for your call last evening. It was so good to "connect" with you again. It seems to me that the last time we talked was several years ago when you called to get permission to use our instrument in your dissertation research.

I do look forward to receiving at least a brief summary of some things that were of interest to you in your research, and I know that Ross Engel will too. Between he and his wife's travels and their move to Des Moines, he's fairly busy right now, but I'll be talking with him again after their move is completed.

I do wish you the very best, and if I can ever be of any help to you in the future please let me know.

Sincerely,

Roger Nall

APPENDIX B

Information Sheet from Institutional Review Board

IRB Number 01
Assurance Number M1194

IRB FORM 108

PROTOCOL NO. 90-216s

EAST TENNESSEE STATE UNIVERSITY
INSTITUTIONAL REVIEW BOARD

PROJECT TITLE: Teacher Recruitment Practices and Teacher Supply and Demand Conditions in Selected School Districts in Six Southeastern States.

PRINCIPAL INVESTIGATOR: Brenda G'Fellers

The Institutional Review Board has reviewed the above-titled project on May 22, 1991 with respect to the rights and safety of human subjects, including matters of informed consent and protection of subject confidentiality, and finds the project acceptable to the Board.

Anthony J. DeLucia
Chairman, IRB

APPENDIX C

Pilot Study Letter

Dear Fellow Educator:

Would you please read and respond to the enclosed questionnaire and opinionnaire? If you prefer, you may designate your system's personnel officer or chief teacher recruitment officer as the appropriate person to complete the instrument.

I am a doctoral student in the Department of Educational Leadership and Policy Analysis at East Tennessee State University, currently involved in a pilot study for the dissertation. My study involves a survey of teacher supply and demand conditions and teacher recruitment practices in six southeastern states. The study has been approved by my doctoral committee.

Medium-sized school districts in Tennessee have been selected to assist with the validation of the questionnaire for the research. Neither your name nor the name of your school system will be revealed in the research.

Your help in this process is vital and appreciated. Your input will increase the validity of the instrument and the research. As you read the questionnaire, please look for clarity and relevance of each item. Your suggestions are welcome.

The completed questionnaire/opinionnaire may be returned to me in the enclosed self-addressed envelope. Thank you for your time and effort.

Sincerely,

Brenda G'Fellers

Brenda G'Fellers
Doctoral Candidate

APPENDIX D

Pilot Study Instrument

QUESTIONNAIRE/FIELD STUDY OPINIONNAIRE

School district name _____

School district address _____

_____

K-12 enrollment _____

Number of vacancies for professional (nonadministrative) personnel, 1988-89
_____

Number of applications received for professional positions, 1988-89_____ Or, Number of active applications on file_____

System's total budget, 1988-89 _____

Teacher recruitment budget, 1988-89 _____

Please read each of the following and check the response which best describes the experiences of the school district. After responding to each item, please complete the opinionnaire stating your perception of the clarity and relevance of each item. When considering relevance, please consider if the item could possibly be relevant to any recruitment program, not its use within the local district.

A = Acceptable UA = Unacceptable

	OPINIONNAIRE			
	CLARITY		RELEVANCE	
A. Has this district experienced difficulty filling teacher vacancies?				
_____ 1. Yes, a general shortage has been experienced.				
_____ 2. Yes, specific subject area and/or grade level shortages have been experienced.				
_____ 3. No, little or no teacher shortage conditions have been experienced.	A	UA	A	UA
B. During 1988-89, which statement best describes the hiring practices of the school district?				
_____ 1. Only fully certificated teachers have been hired.				
_____ 2. Due to a shortage of applications from fully qualified and certificated individuals, some newly hired teachers have emergency certification. Number hired during 1988-89 with emergency certification_____				
_____ 3. Due to a shortage of applications from fully qualified and certificated individuals, some newly hired teachers are pursuing alternative certification. Number hired during 1988-89 pursuing alternative certification_____	A	UA	A	UA
C. Which of the following describe this school district?				
_____ 1. Located within a Metropolitan Statistical Area				
_____ 2. Not within a Metropolitan Statistical Area	A	UA	A	UA

		CLARITY		RELEVANCE	
D.	Title of chief recruitment officer _____				
	_____	A	UA	A	UA
E.	Title of individual completing this document _____				
	_____	A	UA	A	UA

Please read each of the following statements which might describe teacher recruitment practices. For each item please respond yes or no to describe its use in the district. Please indicate its value (importance) as a component of the total teacher recruitment program within the school district by assigning a rank of one to five, with (1) meaning of no importance and (5) meaning of great importance within the district. Please continue to rate each item for clarity and relevance, as previously requested.

Internal Recruitment Practices

	USE		IMPORTANCE					CLARITY		RELEVANCE	
1. Brought prospective teacher into district for visit	Y	N	1	2	3	4	5	A	UA	A	UA
2. Assigned individual to help conduct district tour for prospective teachers	Y	N	1	2	3	4	5	A	UA	A	UA
3. Posted teacher job vacancies in district	Y	N	1	2	3	4	5	A	UA	A	UA
4. Assigned current teacher to recruitment activities	Y	N	1	2	3	4	5	A	UA	A	UA
5. Helped a teacher employed within the district to gain certification in shortage area	Y	N	1	2	3	4	5	A	UA	A	UA
6. Asked current teachers to recommend prospective teacher candidates	Y	N	1	2	3	4	5	A	UA	A	UA
7. Worked with teachers' associations in teacher recruitment activities	Y	N	1	2	3	4	5	A	UA	A	UA
8. Prepared a descriptive brochure for distribution to prospective teachers	Y	N	1	2	3	4	5	A	UA	A	UA
9. Worked with local Future Teachers of America chapter in recruitment activities	Y	N	1	2	3	4	5	A	UA	A	UA
10. Developed long range plans covering 2 or more years in the area of teacher recruitment	Y	N	1	2	3	4	5	A	UA	A	UA

External Recruitment Practices

11. Placed ad for teachers in major metropolitan newspaper within the state	Y	N	1	2	3	4	5	A	UA	A	UA
12. Placed ad for teachers in major metropolitan newspaper in another state	Y	N	1	2	3	4	5	A	UA	A	UA
13. Placed ad for teachers in trade journal or newspaper, for example, EDUCATION WEEK or SCHOOL LIBRARY JOURNAL	Y	N	1	2	3	4	5	A	UA	A	UA

		USE		IMPORTANCE					CLARITY		RELEVANCE	
14.	Produced television or video ad for teachers	Y	N	1	2	3	4	5	A	UA	A	UA
15.	Produced radio ad for teachers	Y	N	1	2	3	4	5	A	UA	A	UA
16.	Maintained contact with placement officers from 2 or more colleges within the state	Y	N	1	2	3	4	5	A	UA	A	UA
17.	Maintained contact with placement officers from 2 or more colleges within another state	Y	N	1	2	3	4	5	A	UA	A	UA
18.	Contacted another district's administrators in search of teacher candidates	Y	N	1	2	3	4	5	A	UA	A	UA
19.	Contacted State Dept. of Education about listings of teacher candidates	Y	N	1	2	3	4	5	A	UA	A	UA
20.	Posted teacher vacancies in the community	Y	N	1	2	3	4	5	A	UA	A	UA
21.	Formed a coalition with another district or districts to attract teacher candidates	Y	N	1	2	3	4	5	A	UA	A	UA
22.	Encouraged/solicited/sought applications from certificated non-practicing prospects	Y	N	1	2	3	4	5	A	UA	A	UA
23.	Made teacher recruitment visits to college/ university campuses	Y	N	1	2	3	4	5	A	UA	A	UA
24.	Hired consultant to help with teacher recruitment	Y	N	1	2	3	4	5	A	UA	A	UA
25.	Participated in state or regional teacher job fair	Y	N	1	2	3	4	5	A	UA	A	UA
26.	Recruited internationally	Y	N	1	2	3	4	5	A	UA	A	UA
27.	Provided imprinted memorabilia, pens, notepads, to attract applicants	Y	N	1	2	3	4	5	A	UA	A	UA
28.	Prepared and distributed poster for use in colleges or schools of education, featuring postcards for inquiry into district teacher opportunities	Y	N	1	2	3	4	5	A	UA	A	UA
29.	Generally, relied upon professional contacts within the state	Y	N	1	2	3	4	5	A	UA	A	UA
30.	Generally, relied upon professional contacts outside the state	Y	N	1	2	3	4	5	A	UA	A	UA

Financial Incentives Used to Attract Candidates

		USE		IMPORTANCE					CLARITY		RELEVANCE	
31.	Paid bonus to new recruits upon signing contract	Y	N	1	2	3	4	5	A	UA	A	UA
32.	With community support, provided discounted interest rates to new teachers	Y	N	1	2	3	4	5	A	UA	A	UA
33.	With community support, provided free or reduced rent to new teachers for a short time	Y	N	1	2	3	4	5	A	UA	A	UA
34.	With community support, reimbursed moving costs for new teachers	Y	N	1	2	3	4	5	A	UA	A	UA
35.	With community support, provided other relocation assistance	Y	N	1	2	3	4	5	A	UA	A	UA
36.	Made provision for sabbatical leave within 5-7 years of employment	Y	N	1	2	3	4	5	A	UA	A	UA
37.	Reimbursed tuition for graduate study	Y	N	1	2	3	4	5	A	UA	A	UA
38.	Increased number of years experience which a recruit can transfer into district	Y	N	1	2	3	4	5	A	UA	A	UA
39.	Increased salary for beginning teachers, in order to attract applicants	Y	N	1	2	3	4	5	A	UA	A	UA
40.	Increased salary for all teachers, in order to attract applicants	Y	N	1	2	3	4	5	A	UA	A	UA
41.	Adopted a merit pay, career ladder, or differentiated staffing plan in order to increase salary for some, to attract applicants	Y	N	1	2	3	4	5	A	UA	A	UA
42.	Utilized fellowships, scholarships, internships, and/or work study plans to attract applicants	Y	N	1	2	3	4	5	A	UA	A	UA
43.	Offered bonuses to new recruits with certification in shortage areas	Y	N	1	2	3	4	5	A	UA	A	UA

Of the activities listed above, which five (5) has your district found to be most effective recruitment practices? Please list in order, with (1) as most effective.

(1) _____

(2) _____

(3) _____

(4) _____

(5) _____

Please check below any certification areas in which your system has experienced shortage conditions.

Grade Levels

_____ Primary, K-2

_____ General elementary, grades 3-5

_____ Middle grades, 6-8

_____ Secondary, 9-12

Special Areas

_____ Bilingual education

_____ Special education

_____ Physical education

_____ Library/Media

_____ Counselors/psychologists

Subject endorsements

_____ English

_____ Reading

_____ Math

_____ Science

_____ Foreign Languages

_____ Social Studies

_____ Vocational/ trades

_____ Art

_____ Music

Comments:

APPENDIX E

Survey Letter

620 Franklin Street
Johnson City, Tennessee 37604
July 29, 1991

Dear Superintendent:

As a doctoral student at East Tennessee State University, I am researching teacher recruitment practices used by public school systems in 6 southeastern states. Your assistance is needed.

A review of the literature indicated variable conditions of teacher supply among both large and small school districts and some experimentation with teacher recruitment techniques within those districts experiencing shortages. In an effort to identify successful recruitment techniques, leaders of school districts which may be experiencing teacher supply problems are being contacted.

You will find enclosed a questionnaire. Please complete the questionnaire to reflect teacher recruitment practices in your school district within the past three years. If your system has a personnel director or teacher recruitment officer, you may wish to pass the questionnaire to that person for completion. A reply envelope is enclosed for the return of the completed questionnaire.

Thank you for taking the time from your busy late summer schedule to give attention to this request. Your contribution to the knowledge of teacher recruitment practices will be a valued one. Confidentiality will be maintained and the unique responses of your school district will not be reported in an identifiable manner.

If you would like to receive a summary copy of the results, please write your name and address at the bottom of this letter and return it with the survey form. Again, I thank you for your assistance.

Sincerely,

Brenda G'Fellers

Brenda G'Fellers

enclosures

APPENDIX F

Survey Instrument

System _____

TEACHER RECRUITMENT PRACTICES

Please read each of the following statements which might describe teacher recruitment practices. For each item please respond "yes" or "no" to describe its use in the district. Please indicate its value (importance) as a component of the total teacher recruitment program within the school district by assigning a rank of "A" to "E" with "A" meaning of no importance and "E" meaning of great importance within the district.

Internal Recruitment Practices		USE		IMPORTANCE
Brought prospective teacher into district for visit.	1.	Yes A / No B	2.	None A B C D E Great
Assigned individual to help conduct district tour for prospective teachers.	3.	Yes A / No B	4.	None A B C D E Great
Posted teacher job vacancies in district.	5.	Yes A / No B	6.	None A B C D E Great
Assigned current teacher to recruitment activities.	7.	Yes A / No B	8.	None A B C D E Great
Helped a teacher employed within the district to gain certification in shortage area.	9.	Yes A / No B	10.	None A B C D E Great
Asked current teachers to recommend prospective teacher candidates.	11.	Yes A / No B	12.	None A B C D E Great
Worked with teachers' associations in teacher recruitment activities.	13.	Yes A / No B	14.	None A B C D E Great
Prepared a descriptive brochure for distribution to prospective teachers.	15.	Yes A / No B	16.	None A B C D E Great
Worked with local Future Teachers of America chapter in recruitment activities.	17.	Yes A / No B	18.	None A B C D E Great
Developed long range plans covering 2 or more years in the area of teacher recruitment.	19.	Yes A / No B	20.	None A B C D E Great

External Recruitment Practices		USE		IMPORTANCE
Placed ad for teachers in major metropolitan newspaper within the state.	21.	Yes A / No B	22.	None A B C D E Great
Placed ad for teachers in major metropolitan newspaper in another state.	23.	Yes A / No B	24.	None A B C D E Great
Placed ad for teachers in trade journal or newspaper, for example, EDUCATION WEEK or SCHOOL LIBRARY JOURNAL.	25.	Yes A / No B	26.	None A B C D E Great

		USE		IMPORTANCE
Produced television or video ad for teachers.	27.	Yes A	No B	28. None A B C D Great E
Produced radio ad for teachers.	29.	Yes A	No B	30. None A B C D Great E
Maintained contact with placement officers from 2 or more colleges within the state.	31.	Yes A	No B	32. None A B C D Great E
Maintained contact with placement officers from 2 or more colleges in other state(s).	33.	Yes A	No B	34. None A B C D Great E
Contacted another district's administrators in search of teacher candidates.	35.	Yes A	No B	36. None A B C D Great E
Contacted State Dept. of Education about listings of teacher candidates.	37.	Yes A	No B	38. None A B C D Great E
Posted teacher vacancies in the community.	39.	Yes A	No B	40. None A B C D Great E
Formed a coalition with another district or districts to attract teacher candidates.	41.	Yes A	No B	42. None A B C D Great E
Encouraged/solicited/sought applications from certificated non-practicing prospects.	43.	Yes A	No B	44. None A B C D Great E
Made teacher recruitment visits to college/university campuses.	45.	Yes A	No B	46. None A B C D Great E
Hired consultant to help with teacher recruitment.	47.	Yes A	No B	48. None A B C D Great E
Participated in state or regional teacher job fair.	49.	Yes A	No B	50. None A B C D Great E
Recruited internationally.	51.	Yes A	No B	52. None A B C D Great E
Provided imprinted memorabilia, pens, notepads, to attract applicants.	53.	Yes A	No B	54. None A B C D Great E
Prepared and distributed poster for use in colleges or schools of education, featuring postcards for inquiry into district teacher vacancies.	55.	Yes A	No B	56. None A B C D Great E
Generally, relied upon professional contacts within the state.	57.	Yes A	No B	58. None A B C D Great E
Generally, relied upon professional contacts outside the state.	59.	Yes A	No B	60. None A B C D Great E

Financial Incentives Used to Attract Applicants		USE			IMPORTANCE				
		Yes	No		None				Great
Paid bonus to new recruits upon signing contract.	61.	A	B	62.	A	B	C	D	E
With community support, provided discounted interest rates to new teachers.	63.	A	B	64.	A	B	C	D	E
Provided rent subsidy to new teachers for a short time.	65.	A	B	66.	A	B	C	D	E
Reimbursed moving costs.	67.	A	B	68.	A	B	C	D	E
Provided other relocation assistance.	69.	A	B	70.	A	B	C	D	E
Provided sabbatical leave after 5-7 years of employment.	71.	A	B	72.	A	B	C	D	E
Reimbursed graduate tuition.	73.	A	B	74.	A	B	C	D	E
Increased number of years of experience which a recruit can transfer into district.	75.	A	B	76.	A	B	C	D	E
Increased salary for new teachers, to draw applicants.	77.	A	B	78.	A	B	C	D	E
Increased salary for all teachers, to draw applicants.	79.	A	B	80.	A	B	C	D	E
Adopted a merit pay, career ladder, or differentiated staffing plan to increase salary for some teachers.	81.	A	B	82.	A	B	C	D	E
Used fellowships, scholarships, internships, and/or work study plans to attract applicants.	83.	A	B	84.	A	B	C	D	E
Offered bonuses to new recruits with certification in shortage areas.	85.	A	B	86.	A	B	C	D	E

TEACHER RECRUITMENT PRACTICES BACKGROUND DATA

Please indicate below any certification areas in which your system has experienced shortage conditions, as listed below. "Yes" indicates shortage conditions have been experienced. "No" means no shortage has been experienced.

Grade Levels	Yes	No
87. Primary, K-2	A	B
88. Elementary grades 3-5	A	B
89. Middle grades 6-8	A	B
90. Secondary 9-12	A	B

Special Areas	Yes	No
91. Bilingual education	A	B
92. Special education	A	B
93. Physical Education	A	B
94. Library/Media	A	B
95. Counselors/ psychologists	A	B

Subject Endorsements	Yes	No
96. English	A	B
97. Reading	A	B
98. Math	A	B
99. Science	A	B
100. Foreign languages	A	B
101. Social studies	A	B
102. Vocational/trades	A	B
103. Art	A	B
104. Music	A	B
105. Business ed.	A	B
106. Computer ed.	A	B
107. Other	A	B

108. Has this district experienced difficulty filling teacher vacancies?
   A. Yes, a general shortage has been experienced.
   B. Yes, specific subject area and/or grade level shortages have been experienced.
   C. No, little or no teacher shortage conditions have been experienced.

109. During 1990-91, which statement best describes the hiring practices of the school district?
   A. Only fully certificated teachers have been hired.
   B. Due to a shortage of applications from fully qualified and certificated individuals, some newly hired teachers have emergency certification.
   C. Due to a shortage of applications from fully qualified and certificated individuals, some newly hired teachers are pursuing alternative certification.

110. Which of the following describes this school district?
   A .Located within a Metropolitan Statistical Area.
   B. Not located within a Metropolitan Statistical Area.

111. The chief teacher recruitment officer in this school district is titled:
   A. Superintendent.
   B. Assistant/Associate/Deputy Superintendent.
   C. Assistant/Associate/Deputy Superintendent for Personnel.
   D. Personnel Director.
   E. Other

112. Title of individual completing this form:
   A. Superintendent.
   B. Assistant/Associate/Deputy Superintendent.
   C. Assistant/Associate/Deputy Superintendent for Personnel.
   D. Personnel Director.
   E. Other

Please complete each of the following short answer questions as accurately as is reasonably possible.

113. The K-12 enrollment of this school district, 1990-91, was _____

114. Number of vacancies for professional (non-administrative) personnel, 1990-91 _____

115. Number of active applications on file _____

116. District's total budget, 1990-91 _____

117. District's total teacher recruitment budget, 1990-91 _____

Please list the 5 teacher recruitment practices which this school district has found to be most effective, with number 1 being the most effective.

118. (1) _____

119. (2) _____

120. (3) _____

121. (4) _____

122. (5) _____

APPENDIX G

Listing of Mailing Labels for Pilot Study

Superintendent
Grundy Co. Schools
PO Box 97
Altamont, TN 37301

Superintendent
Polk Co. Schools
PO Box A
Benton, TN 37307

Superintendent
Haywood Co. Schools
900 E. Main St.
Brownsville, TN 38012

Superintendent
Hickman Co. Schools
108 College Ave.
Centerville, TN 37033

Superintendent
Cleveland City Schools
4300 Mouse Creek Rd NW
Cleveland, TN 37311

Superintendent
Putnam Co. Schools
442 E. Spring ST.
Cookeville, TN 38501

Superintendent
Tipton Co. Schools
PO Box 486
Covington, TN 38019

Superintendent
Dyer Co. Schools
159 Everett St.
Dyersburg, TN 38024

Superintendent
Unicoi Co. Schools
600 Elm Ave N.
Erwin, TN 37650

Superintendent
Greene Co. Schools
111 Union St.
Greeneville, TN 37743

Superintendent
Scott Co. Schools
PO Box 37
Huntsville, TN 37756

Superintendent
Madison Co. Schools
701 S. Highland Ave.
Jackson, TN 38301

Superintendent
Cheatham Co. Schools
102 Elizabeth St.
Ashland City, TN 37015

Superintendent
Hardeman Co. Schools
PO Box 112
Bolivar, TN 38008

Superintendent
Benton Co. Schools
PO Box 148
Camden, TN 38320

Superintendent
Dickson Co. Schools
PO Box 218
Charlotte, TN 37036

Superintendent
Anderson Co. Schools
Courthouse
Clinton, TN 37716

Superintendent
Cumberland Co. Schools
PO Box 567
Crossville, TN 38555

Superintendent
Rhea Co. Schools
Montague St.
Dayton, TN 37321

Superintendent
Carter Co. Schools
Academy St.
Elizabethton, TN 37643

Superintendent
Lincoln Co. Schools
208 Davidson St. E
Fayetteville, TN 37334

Superintendent
Greeneville Schools
PO Box 1420
Greeneville, TN 37744

Superintendent
Campbell Co. Schools
PO Box 445
Jacksboro, TN 37757

Superintendent
Fentress Co. Schools
PO Box L
Jamestown, TN 38556

Superintendent
McMinn Co. Schools
Courthouse
Athens, TN 37303

Superintendent
Bristol City Schools
614 Edgemont Ave
Bristol, TN 37620

Superintendent
Smith Co. Schools
100 Main St.
Carthage, TN 37030

Superintendent
Bradley Co. Schools
PO Box 399
Cleveland, TN 37364

Superintendent
Maury Co. Schools
401 W. 9th St.
Columbia, TN 38401

Superintendent
Jefferson Co. Schools
PO Box 190
Dandridge, TN 37725

Superintendent
Weakley Co. Schools
PO Box 71
Dresden, TN 38225

Superintendent
Elizabethton Schools
RR 9 Box 8
Elizabethton TN 37643

Superintendent
Franklin City Schools
303 Fairground St.
Franklin, TN 37064

Superintendent
Humboldt Schools
1421 Osborne
Humboldt, TN 38343

Superintendent
Jackson City Schools
100 E. Main St.
Jackson, TN 38301

Superintendent
Marion Co. Schools
326 Betsy Pack Drive
Jasper, TN 37347

Superintendent
Johnson City Schools
PO BOX 1517
Johnson City, TN 37605

Superintendent
Roane Co. Schools
100 Bluff RD
Kingston, TN 37763

Superintendent
Wilson Co. Schools
218 E High St.
Lebanon, TN 37087

Superintendent
Overton Co. Schools
112 Bussell St.
Livingston, TN 38570

Superintendent
Coffee Co. Schools
210 E McClean St
Manchester, TN 37354

Superintendent
Hamblen Co. Schools
210 E Morris Blvd
Morristown, TN 37814

Superintendent
Oak Ridge Schools
New York Ave
Oak Ridge, TN 37830

Superintendent
Lauderdale Co Schools
402 S Washington
Ripley, TN 38063

Superintendent
Hardin Co Schools
616 Harlem St
Savannah, TN 38372

Superintendent
Nedford Co Schools
500 Madison St
Shelbyville, TN 37160

Superintendent
White Co Schools
136 Baker St
Sparta, TN 38583

Superintendent
Tullahoma Schools
1001 S Jackson St N
Tullahoma, TN 37388

Superintendent
Humphreys Co Schools
103 S Church St.
Waverly, TN 37185

Superintendent
Washington Co. Schools
405 W. College St.
Jonesborough, TN 37659

Superintendent
Macon Co. Schools
501 College St.
Lafayette, TN 37083

Superintendent
Marshall Co. Schools
700 Jones Circle
Lewisburg, TN 37091

Superintendent
Loudon Co. Schools
PO Box D
Loudon, TN 37774

Superintendent
Maryville Schools
400 W Broadway Ave
Maryville, TN 37801

Superintendent
Johnson Co. Schools
211 N Church St
Mountain City, TN 37683

Superintendent
Henry Co Schools
PO Box 47
Paris, TN 38242

Superintendent
Hawkins Co Schools
200 N Depot St
Rogersville, TN 37857

Superintendent
McNairy Co Schools
Selmer, TN 38375

Superintendent
Dekalb Co Schools
104 S 3rd St
Smithville TN 37166

Superintendent
Robertson Co Schools
22nd & Soodland St
Springfield, TN 37172

Superintendent
Obion Co Schools
PO box 747
Union City, TN 38261

Superintendent
Wayne Co Schools
PO Box 658
Waynesboro, TN 38485

Superintendent
Kingsport Schools
1701 E. Center St.
Kingsport, TN 37664

Superintendent
Lawrence Co. Schools
W Gaines ST
Lawrenceburg, TN38464

Superintendent
Henderson Co. Schools
PO Box 190
Lexington, TN 38351

Superintendent
Monroe Co. Schools
Courthouse
Madisonville TN 37354

Superintendent
Warren Co. Schools
109 Lyon St
McMinnville TN 37110

Superintendent
Cocke Co. Schools
College St
Newport, TN 37821

Superintendent
Giles Co Schools
720 W Flower St
Pulaski, TN 38478

Superintendent
Grainger Co Schools
PO Box 38
Rutledge, TN 37861

Superintendent
Sevier Co Schools
226 Cedar St
Sevierville TN 37862

Superintendent
Fayette Co Schools
PO Box 10
Somerville TN 38068

Superintendent
Claiborne Co Schools
PO Box 179
Tazewell, TN 37879

Superintendent
Morgan Co Schools
PO Box 348
Wartburg, TN 37887

Superintendent
Franklin Co Schools
PO Box 129
Winchester, TN 37398

APPENDIX H

Listing of Mailing Labels for Survey-Florida

SUPERINTENDENT
FRANKLIN SD 19
155 AVENUE E
APALACHICOLA FL 32320

SUPERINTENDENT
MANATEE SD 41
PO BOX 9069
BRADENTON FL 34206

SUPERINTENDENT
PINELLAS SD 52
PO BOX 4688
CLEARWATER FL 34618

SUPERINTENDENT
VOLUSIA SD 64
PO BOX 2118
DELAND FL 32721

SUPERINTENDENT
ST LUCIE SD 56
2909 DELAWARE AVE
FT PIERCE FL 34947

SUPERINTENDENT
CITRUS SD 9
1007 W MAIN ST
INVERNESS FL 32650

SUPERINTENDENT
OSCEOLA SD 49
PO BOX 1948
KISSIMMEE FL 32742

SUPERINTENDENT
LAFAYETTE SD 34
PO BOX 58
MAYO FL 32066

SUPERINTENDENT
JEFFERSON SD 33
1490 W WASHINGTON ST
MONTICELLO FL 32344

SUPERINTENDENT
MARION SD 42
PO BOX 670
OCALA FL 32678

SUPERINTENDENT
BAY SD 3
PO BOX 820
PANAMA CITY FL 32401

SUPERINTENDENT
CHARLOTTE SD 8
1016 EDUCATION ST
PUNTA GORDA FL 33950

SUPERINTENDENT
POLK SD 53
PO BOX 391
BARTOW FL 33830

SUPERINTENDENT
LIBERTY SD 39
PO BOX 429
BRISTOL FL 32321

SUPERINTENDENT
OKALOOSA DS 46
COUNTY COURTHOUSE
CRESTVIEW FL 32536

SUPERINTENDENT
BROWARD CO SD 6
PO BOX 5408
FT LAUDERDALE FL 33310

SUPERINTENDENT
ALACHUA SD 1
1817 E UNIVERSITY AVE
GAINESVILLE FL 32601

SUPERINTENDENT
DUVAL SD 16
1701 PRUDENTIAL DR
JACKSONVILLE FL 32207

SUPERINTENDENT
UNION SD 63
55 SW 6TH ST
LAKE BUTLER FL 32054

SUPERINTENDENT
DADE SD 13
1410 NE 2ND AVE
MIAMI FL 33132

SUPERINTENDENT
GLADES SD 22
PO BOX 459
MOORE HAVEN FL 33471

SUPERINTENDENT
ORANGE SD 48
PO BOX 271
ORLANDO FL 32802

SUPERINTENDENT
ESCAMBIA SD 17
PO BOX 1470
PENSACOLA FL 32597

SUPERINTENDENT
BREVARD SD 5
1260 FLORIDA AVE S
ROCKLEDGE FL 32955

SUPERINTENDENT
CALHOUN SD 7
425 E CENTRAL AVE
BLOUNTSTOWN FL 32424

SUPERINTENDENT
HERNANDO SD 27
919 US HWY 41N
BROOKSVILLE FL 34601

SUPERINTENDENT
DIXIE SD 15
PO BOX G
CROSS CITY FL 32628

SUPERINTENDENT
LEE SD 36
2055 CENTRAL AVE
FT MYERS FL 33901

SUPERINTENDENT
CLAY SD 10
PO BOX 488
GREEN CV SPRG FL 32043

SUPERINTENDENT
HAMILTON SD 24
PO BOX 1059
JASPER FL 32052

SUPERINTENDENT
PASCO SD 51
7727 US HWY 41
LAND O'LAKES FL 34639

SUPERINTENDENT
SANTA ROSA SD 57
603 CANAL ST
MILTON FL 32570

SUPERINTENDENT
COLLIER SD 11
3710 ESTEY AVE
NAPLES FL 33942

SUPERINTENDENT
PUTNAM SD 54
200 S 7TH ST
PALATKA FL 32077

SUPERINTENDENT
GULF SD 23
CO COURTHOUSE
PORT ST JOE FL 32456

SUPERINTENDENT
ST JOHN'S SD 55
PO BOX 500
ST AUGUSTINE FL 32085

SUPERINTENDENT
SEMINOLE SD 59
1211 S MELLONVILLE AVE
SANFORD FL 32771

SUPERINTENDENT
LEON SD 37
2757 W PENSACOLA ST
TALLAHASSEE FL 32304

SUPERINTENDENT
GILCHRIST SD 21
PO BOX 67
TRENTON FL 32693

SUPERINTENDENT
SARASOTA SD 58
2418 HATTON ST
SARASOTA FL 34237

SUPERINTENDENT
HILLSBOROUGH SD 29
PO BOX 3408
TAMPA FL 33601

SUPERINTENDENT
INDIAN RIVER SD 31
1990 25TH ST
VERO BEACH FL 32960

SUPERINTENDENT
MARTIN SD 43
PO BOX 1049
STUART FL 34995

SUPERINTENDENT
LAKE SD 35
210 W BURLEIGH BLVD
TAVARES FL 32778

SUPERINTENDENT
PALM BEACH SD 50
3323 BELVEDERE RD
W PALM BEACH FL 33406

APPENDIX I

Listing of Mailing Labels for Survey-Georgia

SUPERINTENDENT
WILCOX CO SCHOOLS
ABBEVILLE, GA 31001

SUPERINTENDENT
BACON CO SCHOOLS
601 N PIERCE ST
ALMA, GA 31510

SUPERINTENDENT
TURNER CO SCHOOLS
213 N CLEVELAND
ASHBURN, GA 31714

SUPERINTENDENT
FULTON CO SCHOOLS
786 CLEVELAND AVE SW
ATLANTA GA 30315

SUPERINTENDENT
UNION CO SCHOOLS
SCHOOL ST
BLAIRSVILLE GA 30512

SUPERINTENDENT
MARION CO SCHOOLS
PO BOX 391
BUENA VISTA GA 31803

SUPERINTENDENT
BUFORD ISD
181 BONA RD
BUFORD GA 30518

SUPERINTENDENT
EVANS CO SCHOOLS
PO BOX 826
CLAXTON GA 30417

SUPERINTENDENT
BLECKLEY CO SCHOOLS
PO BOX 516
COCHRAN GA 31014

SUPERINTENDENT
COMMERCE ISD
UNIVERSITY DR
COMMERCE GA 30529

SUPERINTENDENT
MCINTOSH CO SCHOOLS
PO BOX 495
DARIEN GA 31305

SUPERINTENDENT
DEKALB CO SCHOOLS
3770 N DECATUR RD
DECATUR GA 30032

SUPERINTENDENT
WHEELER CO SCHOOLS
PO BOX 427
ALAMO, GA 30411

SUPERINTENDENT
SUMTER CO SCHOOLS
PO BOX 967
AMERICUS GA 31709

SUPERINTENDENT
CLARKE CO SCHOOLS
PO BOX 1708
ATHENS GA 30603

SUPERINTENDENT
RICHMOND CO SCHOOLS
2083 HECKLE ST
AUGUSTA GA 30904

SUPERINTENDENT
BREMEN ISD
504 LAUREL ST
BREMEN GA 30110

SUPERINTENDENT
TAYLOR CO SCHOOLS
PO BOX 1937
BUTLER GA 31006

SUPERINTENDENT
CALHOUN ISD
PO BOX 785
CALHOUN GA 30701

SUPERINTENDENT
RABUN CO SCHOOLS
PO BOX 468
CLAYTON GA 30525

SUPERINTENDENT
MILLER CO SCHOOLS
PO BOX 188
COLQUITT, GA 31737

SUPERINTENDENT
RANDOLPH CO SCHOOLS
309 N WEBSTER ST
CUTHBERT GA 31740

SUPERINTENDENT
TERRELL CO SCHOOLS
PO BOX 151
DAWSON GA 31742

SUPERINTENDENT
SEMINOLE CO SCHOOLS
PO BOX 188
DONALSONVILLE GA 31745

SUPERINTENDENT
DOUGHERTY CO SCHOOLS
PO BOX 1470
ALBANY, GA 31702

SUPERINTENDENT
COLUMBIA CO SCHOOLS
PO BOX 10
APPLING, GA 30802

SUPERINTENDENT
ATLANTA ISD
210 PRYOR ST SW
ATLANTA GA 30303

SUPERINTENDENT
LAMAR CO SCHOOLS
204 GORDON RD
BARNESVILLE GA 30204

SUPERINTENDENT
GLYNN CO SCHOOLS
PO BOX 1677
BRUNSWICK GA 31521

SUPERINTENDENT
CHEROKEE CO SCHOOLS
PO BOX 769
CANTON GA 30114

SUPERINTENDENT
CHICKAMAUGA ISD
105 LEE CIRCLE
CHICKAMAUGA GA 30707

SUPERINTENDENT
WHITE CO SCHOOLS
PO BOX 295
CLEVELAND GA 30528

SUPERINTENDENT
MUSCOGEE CO SCHOOLS
1200 BRADLEY DR
COLUMBUS GA 31906

SUPERINTENDENT
LUMPKIN CO SCHOOLS
101 MOUNTAIN VIEW DR
DAHLONEGA GA 30533

SUPERINTENDENT
DAWSON CO SCHOOLS
PO BOX 280
DAWSONVILLE GA 30534

SUPERINTENDENT
DOUGLAS CO SCHOOLS
PO BOX 1077
DOUGLASVILLE GA 30133

SUPERINTENDENT
PUTNAM CO SCHOOLS
PO BOX 31
EATONTON, GA 31024

SUPERINTENDENT
CHARLTON CO SCHOOLS
500 S 3RD ST
FOLKSTON GA 31537

SUPERINTENDENT
GLASCOCK CO SCHOOLS
PO BOX 205
GIBSON GA 30810

SUPERINTENDENT
PULASKI CO SCHOOLS
MCCORMICK AVE
HAWKINSVILLE GA 31036

SUPERINTENDENT
BANKS CO SCHOOLS
PO BOX 1657
HOMER GA 30547

SUPERINTENDENT
PICKENS CO SCHOOLS
211 N MAIN ST
JASPER GA 30143

SUPERINTENDENT
CLAYTON CO SCHOOLS
120 SMITH ST
JONESBORO GA 30236

SUPERINTENDENT
GWINNETT CO SCHOOLS
52 GWINNETT DR
LAWRENCEVILLE GA 30245

SUPERINTENDENT
LONG CO SCHOOLS
PO BOX 428
LUDOWICI GA 31316

SUPERINTENDENT
BIBB CO SCHOOLS
PO BOX 6157
MACON GA 31204

SUPERINTENDENT
CANDLER CO SCHOOLS
PO BOX 536
METTER GA 30439

SUPERINTENDENT
MONTGOMERY CO SCHOOLS
PO BOX 315
MOUNT VERNON GA 30445

SUPERINTENDENT
GILMER CO SCHOOLS
5 WEST SIDE SQUARE ST
ELLIJAY GA 30540

SUPERINTENDENT
HEARD CO SCHOOLS
PO BOX 99
FRANKLIN GA 30217

SUPERINTENDENT
GREENE CO SCHOOLS
PO BOX 209
GREENSBORO GA 30642

SUPERINTENDENT
TOWNS CO SCHOOLS
PO BOX 386
HIAWASSEE GA 30546

SUPERINTENDENT
CLINCH CO SCHOOLS
101 COLLEGE ST
HOMERVILLE GA 31634

SUPERINTENDENT
JEFFERSON ISD
PO BOX 507
JEFFERSON GA 30549

SUPERINTENDENT
WALKER CO SCHOOLS
PO BOX 29
LA FAYETTE GA 30728

SUPERINTENDENT
OGLETHORPE CO SCHOOLS
PO BOX 190
LEXINGTON GA 30648

SUPERINTENDENT
STEWART CO SCHOOLS
PO BOX 547
LUMPKIN GA 31815

SUPERINTENDENT
COBB CO SCHOOLS
PO BOX 1088
MARIETTA GA 30061

SUPERINTENDENT
JENKINS CO SCHOOLS
PO BOX 660
MILLEN GA 30442

SUPERINTENDENT
BRANTLEY CO SCHOOLS
PO BOX 613
NAHUNTA GA 31553

SUPERINTENDENT
FITZGERALD ISD
PO BOX 1047
FITZGERALD GA 31750

SUPERINTENDENT
HALL CO SCHOOLS
300 GREEN ST
GAINESVILLE GA 30501

SUPERINTENDENT
SPALDING CO SCHOOLS
PO BOX N
GRIFFIN GA 30224

SUPERINTENDENT
HOGANSVILLE ISD
103 E MAIN ST
HOGANSVILLE GA 30230

SUPERINTENDENT
WILKINSON CO SCHOOLS
PO BOX 206
IRWINTON GA 31042

SUPERINTENDENT
TWIGGS CO SCHOOLS
I-16 & GA 96
JEFFERSONVILLE GA 31044

SUPERINTENDENT
LANIER CO SCHOOLS
PO BOX 158
LAKELAND GA 31635

SUPERINTENDENT
LINCOLN CO SCHOOLS
PO BOX 39
LINCOLNTON GA 30817

SUPERINTENDENT
TOOMBS CO SCHOOLS
118 NW BROAD ST
LYONS GA 30436

SUPERINTENDENT
TELFAIR CO SCHOOLS
210B E PARSONAGE ST
MCRAE GA 31055

SUPERINTENDENT
JASPER CO SCHOOLS
126 COURTHOUSE
MONTICELLO GA 30164

SUPERINTENDENT
IRWIN CO SCHOOLS
PO BOX 225
OCILLA GA 31774

SUPERINTENDENT
ATKINSON CO SCHOOLS
PO BOX 608
PEARSON GA 31642

SUPERINTENDENT
HOUSTON CO SCHOOLS
1211 WASHINGTON ST
PERRY GA 31069

SUPERINTENDENT
SOCIAL CIRCLE ISD
PO BOX 428
SOCIAL CIRCLE GA 30279

SUPERINTENDENT
ECHOLS CO SCHOOLS
PO BOX 207
STATENVILLE GA 31648

SUPERINTENDENT
DADE CO SCHOOLS
PO BOX 188
TRENTON GA 30752

SUPERINTENDENT
WILKES CO SCHOOLS
PO BOX 279
WASHINGTON GA 30673

SUPERINTENDENT
PELHAM ISD
203 MATHEWSON AVE SW
PELHAM GA 31779

SUPERINTENDENT
CRAWFORD CO SCHOOLS
322 MANOR ST
ROBERTA GA 31078

SUPERINTENDENT
TREUTLEN CO SCHOOLS
202 3RD ST
SOPERTON GA 30457

SUPERINTENDENT
TALBOT CO SCHOOLS
PO BOX 515
TALBOTTON GA 31827

SUPERINTENDENT
TRION ISD
PARK AVE
TRION GA 30753

SUPERINTENDENT
BRYAN CO SCHOOLS
PO BOX 768
PEMBROKE GA 31321

SUPERINTENDENT
CHATHAM CO SCHOOLS
208 BULL ST
SAVANNAH GA 31401

SUPERINTENDENT
HANCOCK CO SCHOOLS
PO BOX 488
SPARTA GA31087

SUPERINTENDENT
THOMASTON ISD
311 CENTER ST S
THOMASTON GA 30286

SUPERINTENDENT
WARREN CO SCHOOLS
PO BOX 228
WARRENTON GA 30828

APPENDIX J

Listing of Mailing Labels for Survey-North Carolina

SUPERINTENDENT
ALBEMARLE CSD
PO BOX 220
ALBEMARLE NC 28002

SUPERINTENDENT
BUNCOMBE CO SCHOOLS
PO BOX 15055
ASHEVILLE NC 28806

SUPERINTENDENT
SWAIN CO SCHOOLS
PO BOX U
BRYSON CITY NC 28713

SUPERINTENDENT
TYRRELL CO SCHOOLS
PO BOX 328
COLUMBIA NC 27925

SUPERINTENDENT
POLK CO SCHOOLS
PO BOX 697
COLUMBUS NC 28722

SUPERINTENDENT
ELKIN CSD
241 CHURCH ST
ELKIN NC 28621

SUPERINTENDENT
FRANKLINTON CSD
PO BOX 430
FRANKLINTON NC 27525

SUPERINTENDENT
WAYNE CO SCHOOLS
301 HERMAN N
GOLDSBORO NC 27530

SUPERINTENDENT
GUILFORD CO SCHOOLS
PO BOX B-2
GREENSBORO NC 27402

SUPERINTENDENT
HENDERSONVILLE CSD
PO BOX 340
HENDERSONVILLE NC 28793

SUPERINTENDENT
CALDWELL CO SCHOOLS
PO BOX 1590
LENOIR NC 28645

SUPERINTENDENT
ROBESON CO SCHOOLS
PO BOX 1328
LUMBERTON NC 28359

SUPERINTENDENT
RANDOLPH CO SCHOOLS
222 S FAYETTVLL ST
ASHEBORO NC 27203

SUPERINTENDENT
MITCHELL CO SCHOOLS
RR 1 BOX 222
BAKERSVLL NC 28705

SUPERINTENDENT
CAMDEN CO SCHOOLS
CAMDEN NC
27921

SUPERINTENDENT
CABARRUS CO SCHOOLS
PO BOX 388
CONCORD NC 28026

SUPERINTENDENT
DURHAM CO SCHOOLS
PO BOX 3823
DURHAM NC 27702

SUPERINTENDENT
FAIRMONT CSD
106 TRINITY ST
FAIRMONT NC 28340

SUPERINTENDENT
GASTON CO SCHOOLS
PO BOX 1397
GASTONIA NC 28053

SUPERINTENDENT
ALAMANCE CO SCHOOLS
609 RAY ST
GRAHAM NC 27253

SUPERINTENDENT
PITT CO SCHOOLS
1717 W 5TH ST
GREENVILLE NC 27834

SUPERINTENDENT
PERQUIMANS CO SD
PO BOX 337
HERTFORD NC 27944

SUPERINTENDENT
DAVIDSON CO SCHOOLS
PO BOX 1229
LEXINGTON NC 27293

SUPERINTENDENT
DARE CO SCHOOLS
PO BOX 640
MANTEO NC 27954

SUPERINTENDENT
ASHEVILLE CSD
PO BOX 7347
ASHEVILLE NC 28807

SUPERINTENDENT
PAMLICO CO SCHOOLS
507 ANDERSON DR
BAYBORO NC 28515

SUPERINTENDENT
MECKLNBRG CO SCHOOLS
PO BOX 30035
CHARLOTTE NC 28230

SUPERINTENDENT
CURRITUCK CO SCHOOLS
PO BOX 40
CURRITUCK NC 27929

SUPERINTENDENT
CHOWAN CO SCHOOLS
PO BOX 207
EDENTON NC 27932

SUPERINTENDENT
CUMBERLAND CO SCHOOLS
PO BOX 2357
FAYETTEVILLE NC 28302

SUPERINTENDENT
GATES CO SCHOOLS
PO BOX 125
GATESVILLE NC 27938

SUPERINTENDENT
GREENSBORO CSD
PO BOX V
GREENSBORO NC 27402

SUPERINTENDENT
CLAY CO SCHOOLS
PO BOX 178
HAYESVILLE NC 28904

SUPERINTENDENT
ONSLOW CO SCHOOLS
222 GEORGETOWN RD
JACKSONVLL NC 28540

SUPERINTENDENT
HARNETT CO SCHOOLS
700 MAIN ST
LILLINGTON NC 27546

SUPERINTENDENT
UNION CO SCHOOLS
500 N MAIN ST
MONROE NC 28110

SUPERINTENDENT
MOORESVILLE CSD
PO BOX 119
MOORESVILLE NC 28115

SUPERINTENDENT
NASH CO SCHOOLS
930 EASTERN AVE
NASHVILLE NC 27856

SUPERINTENDENT
WAKE CO SCHOOLS
3600 WAKE FOREST RD
RALEIGH NC 27609

SUPERINTENDENT
ST PAULS CSD
302 N OLD STAGE RD
ST PAULS NC 28384

SUPERINTENDENT
ALLEGHANY CO SCHOOLS
1 PEACHTREE ST
SPARTA NC 28675

SUPERINTENDENT
HYDE CO SCHOOLS
PO BOX 217
SWANQUARTER NC 27885

SUPERINTENDENT
WELDON CSD
PO BOX 31
WELDON NC 27890

SUPERINTENDENT
WILSON CO SCHOOLS
117 N TARBORO ST
WILSON NC 27893

SUPERINTENDENT
BURKE CO SCHOOLS
PO BOX 989
MORGANTON NC 28655

SUPERINTENDENT
CRAVEN CO SCHOOLS
222 BROAD ST
NEW BERN NC 28560

SUPERINTENDENT
RED SPRINGS CSD
130 MCNEIL DR
RED SPRINGS NC 28377

SUPERINTENDENT
ROWAN CO SCHOOLS
PO BOX 1348
SALISBURY NC 28145

SUPERINTENDENT
RUTHRFRD CO SCHOOLS
219 FAIRGROUND RD
SPINDALE NC 28160

SUPERINTENDENT
JONES CO SCHOOLS
PO BOX 187
TRENTON NC 28585

SUPERINTENDENT
WILKES CO SCHOOLS
201 MAIN ST W
WILKESBORO NC 28697

SUPERINTENDENT
FORSYTH CO SCHOOLS
PO BOX 2513
WINSTN-SALM NC 27102

SUPERINTENDENT
MT AIRY CSD
PO BOX 710
MT AIRY NC 27030

SUPERINTENDENT
CATAWBA CO SCHOOLS
PO BOX 1000
NEWTON NC 28658

SUPERINTENDENT
GRAHAM CO SCHOOLS
PO BOX 605
ROBBINSVILLE NC 28771

SUPERINTENDENT
JOHNSTON CO SCHOOLS
HWY 70-E
SMITHFIELD NC 27577

SUPERINTENDENT
IREDELL CO SCHOOLS
PO BOX 709
STATESVILLE NC 28677

SUPERINTENDENT
TRYON CSD
PO BOX 850
TRYON NC 28782

SUPERINTENDENT
NEW HANOVER CO SCHOOLS
PO BOX 390
WILMINGTON NC 28402

APPENDIX K

Listing of Mailing Labels for Survey-South Carolina

SUPERINTENDENT
AIKEN CO SCHOOLS
PO BOX 1137
AIKEN, SC 29802

SUPERINTENDENT
LEXINGTON SCHOOLS 5
PO BOX 938
BALLENTINE, SC 29002

SUPERINTENDENT
BEAUFORT CO SCHOOLS
PO BOX 309
BEAUFORT, SC 29901

SUPERINTENDENT
ORANGEBURG SD 8
BRANCHVILLE SC
29432

SUPERINTENDENT
RICHLAND SD 2
6831 BROOKFIELD RD
COLUMBIA SC 29206

SUPERINTENDENT
DARLINGTON SD
RM 304 COURTHOUSE
DARLINGTON SC 29532

SUPERINTENDENT
ORANGEBURG SD 7
ELLOREE SC
29047

SUPERINTENDENT
GEORGETOWN CO SCHOOLS
PO BOX 720
GEORGETOWN SC 29442

SUPERINTENDENT
ANDERSON SD 3
PO BOX 118
IVA, SC 29655

SUPERINTENDENT
DILLON SD 3
PO BOX 458
LATTA SC 29565

SUPERINTENDENT
BERKELEY CO SCHOOLS
PO BOX 608
MONCKS CORNER SC 29461

SUPERINTENDENT
COOPER RIVER CONSTITUENT
4720 JENKINS AVE
N CHARLESTON SC 29406

SUPERINTENDENT
ALLENDALE CO SCHOOLS
PO BOX 458
ALLENDALE SC 29810

SUPERINTENDENT
BAMBERG SCHOOLS 1
PO BOX 526
BAMBERG, SC 29003

SUPERINTENDENT
BARNWELL SD 19
PO BOX 185
BLACKVILLE, SC 29817

SUPERINTENDENT
ST JOHNS SCHOOL D
1825 CAMP ROAD #B
CHARLESTON SC 29412

SUPERINTENDENT
HORRY CO SCHOOLS
PO BOX 1739
CONWAY SC 29526

SUPERINTENDENT
BAMBERG SD 2
PO BOX 345
DENMARK SC 29042

SUPERINTENDENT
HAMPTON SD 2
PO BOX 1028
ESTILL SC 29918

SUPERINTENDENT
GREENVILLE CO SCHOOLS
PO BOX 2848
GREENVILLE SC 29602

SUPERINTENDENT
FLORENCE SD 5
PO BOX 98
JOHNSONVILLE SC 29555

SUPERINTENDENT
LEXINGTON SD 1
PO BOX 219
LEXINGTON SC 29072

SUPERINTENDENT
GREENWOOD SD 52
119 S CAMBRIDGE RD
NINETY SIX SC 29666

SUPERINTENDENT
FLORENCE SD 2
RR1 BOX 36-B
PAMPLICO SC 29583

SUPERINTENDENT
ANDERSON SCHOOLS
PO BOX 439
ANDERSON, SC 29622

SUPERINTENDENT
LEXINGTON SCHOOLS 3
707 E COLUMBIA AVE
BATESBURG, SC 29006

SUPERINTENDENT
ORANGEBURG SD 2
PO BOX 36
BOWMAN SC 29018

SUPERINTENDENT
RICHLAND SD 1
1616 RICHLAND ST
COLUMBIA SC 29210

SUPERINTENDENT
ORANGEBURG SD 4
PO BOX A
CORDOVA SC 29039

SUPERINTENDENT
PICKENS SD
RR 8 BOX 375
EASLEY SC 29640

SUPERINTENDENT
FLORENCE SD 1
319 S DARGAN ST
FLORENCE SC 29501

SUPERINTENDENT
MARION SD 4
RR1 BOX 449
GRESHAM SC 29546

SUPERINTENDENT
DILLON SD 1
PO BOX 644
LAKE VIEW SC 29563

SUPERINTENDENT
MCCORMICK SD
PO BOX 548
MCCORMICK SC 29835

SUPERINTENDENT
ORANGEBURG SD 6
PO BOX 640
NORTH SC 29112

SUPERINTENDENT
ANDERSON SD 4
PO BOX 545
PENDLETON SC 29670

SUPERINTENDENT
MARION SD 3
RAINS, SC
29589

SUPERINTENDENT
SALUDA SCHOOLS
404 N WISE RD
SALUDA SC 29138

SUPERINTENDENT
CLARENDON SD 1
PO BOX 38
SUMMERTON SC 29148

SUPERINTENDENT
DORCHESTER SD 2
102 GREENWAVE BLVD
SUMMERVILLE SC 29483

SUPERINTENDENT
GREENWOOD SD 51
42 SPARKS AVE
WARE SHOALS SC 29692

SUPERINTENDENT
ST PAUL CONSTITUENT
RR1 BOX 272A
YONGES ISLAND SC 29494

SUPERINTENDENT
ROCK HILL SD 3
PO BOX 10072
ROCK HILL SC 29731

SUPERINTENDENT
SPARTANBURG SD 7
PO BOX 970
SPARTANBURG SC 29304

SUPERINTENDENT
LEXINGTON SD 4
PO BOX 128
SWANSEA SC 29160

SUPERINTENDENT
CLARENDON SD 3
PO BOX 270
TURBEVILLE SC 29162

SUPERINTENDENT
WILLISTON SD 29
PO BOX 508
WILLISTON SC 29853

SUPERINTENDENT
CALHOUN SCHOOLS
PO BOX 215
ST MATTHEWS SC 29135

SUPERINTENDENT
ORANGEBURG SD 1
PO BOX 337
SPRINGFIELD SC 29146

SUPERINTENDENT
FLORENCE SD 4
612 S HILL ST
TIMMONSVILLE SC 29161

SUPERINTENDENT
OCONEE CO SCHOOLS
PO BOX 220
WALHALLA SC 29691

SUPERINTENDENT
SPARTANBURG SD 4
PO BOX 669
WOODRUFF SC 29388

APPENDIX L

Listing of Mailing Labels for Survey-Tennessee

SUPERINTENDENT
CROCKETT CO SCHOOLS
RURAL ROUTE 2
ALAMO, TN 38001

SUPERINTENDENT
SULLIVAN CO SCHOOLS
PO BOX 306
BLOUNTVILLE, TN 37617

SUPERINTENDENT
PICKETT CO SCHOOLS
WOODLAWN DRIVE
BYRDSTOWN, TN 38549

SUPERINTENDENT
HAMILTON CO SCHOOLS
1161 40TH ST E
CHATTANOOGA, TN 37404

SUPERINTENDENT
MEIGS CO SCHOOLS
PO BOX 68
DECATUR TN 37322

SUPERINTENDENT
SEQUATCHIE CO SCHOOLS
PO BOX 488
DUNLAP, TN 37327

SUPERINTENDENT
FAYETTEVILLE CSD
219 COLLEGE ST E
FAYETTEVILLE TN 37334

SUPERINTENDENT
SUMNER CO SCHOOLS
117 E WINCHESTER ST
GALLATIN TN 37066

SUPERINTENDENT
CHESTER CO SCHOOLS
PO BOX 327
HENDERSON TN 38340

SUPERINTENDENT
KNOX CO SCHOOLS
PO BOX 2188
KNOXVILLE TN 37901

SUPERINTENDENT
PERRY CO SCHOOLS
PO BOX 909
LINDEN TN 37096

SUPERINTENDENT
BLOUNT CO SCHOOLS
301 COURTHOUSE ST
MARYVILLE TN 37801

SUPERINTENDENT
ALCOA SCHOOLS
500 FARADAY ST
ALCOA, TN 37701

SUPERINTENDENT
BRADFORD SCHOOLS
PO BOX 220
BRADFORD, TN 38316

SUPERINTENDENT
CLAY CO SCHOOLS
PO BOX 188
CELINA, TN 38551

SUPERINTENDENT
SO. CARROLL SCHOOLS
PO BOX 15
CLARKSBURG, TN 38324

SUPERINTENDENT
DECATUR CO SCHOOLS
PO BOX 160
DECATURVILLE TN 38329

SUPERINTENDENT
GIBSON CSD
PO BOX D
DYER, TN 38330

SUPERINTENDENT
WILLIAMSON CO SCHOOLS
1320 W MAIN #202
FRANKLIN, TN 37064

SUPERINTENDENT
HARRIMAN CSD
1001 ROANE ST
HARRIMAN TN 37748

SUPERINTENDENT
LEWIS CO SCHOOLS
206 S COURT ST
HOHENWALD TN 38462

SUPERINTENDENT
LEBANON CSD
507 COLES FERRY PIKE
LEBANON TN 37087

SUPERINTENDENT
MOORE CO SCHOOLS
PO BOX 219
LYNCHBURG TN 37352

SUPERINTENDENT
UNION CO SCHOOLS
MAYNARDVILLE
TN 37807

SUPERINTENDENT
ATHENS CITY SCHOOLS
943 CRESTWAY DR
ATHENS, TN 37303

SUPERINTENDENT
HOLLOW ROCK-BRUCETON
PO BOX 135
BRUCETON, TN 38317

SUPERINTENDENT
CHATTANOOGA SCHOOLS
1161 40TH ST E
CHATTANOOGA, TN 37407

SUPERINTENDENT
MONTGOMERY CO SCHOOLS
501 FRANKLIN ST
CLARKSVILLE TN 37040

SUPERINTENDENT
STEWART CO SCHOOLS
PO BOX 40
DOVER, TN 37058

SUPERINTENDENT
HOUSTON CO SCHOOLS
PO BOX 209
ERIN, TN 37061

SUPERINTENDENT
JACKSON CO SCHOOLS
PO BOX 95
GAINESBORO TN 38562

SUPERINTENDENT
TROUSDALE CO SCHOOLS
214 BROADWAY
HARTSVILLE TN 37074

SUPERINTENDENT
HUNTINGDON CSD
PO BOX 648
HUNTINGDON TN 38344

SUPERINTENDENT
LENOIR CITY CSD
104 A ST
LENOIR CITY TN 37771

SUPERINTENDENT
MANCHESTER CSD
209 E MCLEAN ST
MANCHESTER TN 37355

SUPERINTENDENT
MCKENZIE CO SCHOOLS
203 W BELL AVE
MCKENZIE TN 38201

SUPERINTENDENT
WEST CARROLL SCHOOLS
PO BOX 279
MCLEMORESVILLE TN 38235

SUPERINTENDENT
MILAN CITY SCHOOLS
PO BOX 528
MILAN TN 38358

SUPERINTENDENT
ONEIDA CSD
110 BANK ST
ONEIDA TN 37841

SUPERINTENDENT
VAN BUREN CO SCHOOLS
PO BOX 98
SPENCER TN 38585

SUPERINTENDENT
TRENTON CSD
201 W 10TH ST
TRENTON TN 38382

SUPERINTENDENT
MEMPHIS CITY SCHOOLS
2597 AVERY AVE
MEMPHIS TN 38112

SUPERINTENDENT
RUTHERFORD CO SCHOOLS
502 MEMORIAL BLVD
MURFREESBORO TN 37130

SUPERINTENDENT
BLEDSOE CO SCHOOLS
PO BOX 369
PIKEVILLE TN 37367

SUPERINTENDENT
SWEETWATER CSD
MONROE ST
SWEETWATER TN 37874

SUPERINTENDENT
UNION CITY CSD
PO BOX 749
UNION CITY TN 38261

SUPERINTENDENT
SHELBY CO SCHOOLS
160 S HOLLYWOOD ST
MEMPHIS TN 38112

SUPERINTENDENT
DAVIDSON CO SCHOOLS
2601 BRANSFORD AVE
NASHVILLE TN 37204

SUPERINTENDENT
HANCOCK CO SCHOOLS
PO BOX 187
SNEEDVILLE TN 37869

SUPERINTENDENT
LAKE CO SCHOOLS
PO BOX 397
TIPTONVILLE TN 38079

SUPERINTENDENT
CANNON CO SCHOOLS
212 E WATER ST
WOODBURY TN 37190

APPENDIX M

Listing of Mailing Labels for Survey-Virginia

SUPERINTENDENT
AMELIA CO SCHOOLS
PO BOX 167
AMELIA CRTHSE VA 23002

SUPERINTENDENT
HANOVER CO SCHOOLS
200 BERKLEY ST
ASHLAND VA 23005

SUPERINTENDENT
BUCKINGHAM CO SCHOOLS
BUCKINGHAM VA
23921

SUPERINTENDENT
CHARLOTTE CO SCHOOLS
PO BOX 387
CHARLTT CRTHSE VA 23923

SUPERINTENDENT
COLONIAL BEACH CSD
300 GARFIELD AVE
COLONIAL BCH VA 22443

SUPERINTENDENT
CUMBERLAND CO SCHOOLS
RR 1
CUMBERLAND VA 23040

SUPERINTENDENT
PRINCE EDWRD CO SD
RR 4 BOX 370
FARMVILLE VA 23901

SUPERINTENDENT
GALAX CSD
223 LONG ST
GALAX VA 24333

SUPERINTENDENT
NORTHUMBERLAND CO SD
PO BOX 258
HEATHSVILLE VA 22473

SUPERINTENDENT
LANCASTER CO SCHOOLS
PO BOX 2000
KILMARNOCK VA 22482

SUPERINTENDENT
KING WILLIAM CO SD
PO BOX 185
KING WILLIAM VA 23086

SUPERINTENDENT
NELSON CO SCHOOLS
LOVINGSTON VA
22949

SUPERINTENDENT
APPOMATTOX CO SD
APPOMATTOX VA
24522

SUPERINTENDENT
CLARKE CO SCHOOLS
PO BOX 351
BERRYVLL VA 22611

SUPERINTENDENT
BUENA VISTA CSD
PO BOX 110
BUENA VSTA VA 24416

SUPERINTENDENT
CHESAPEAKE CSD
PO BOX 15204
CHESAPEAKE VA 23320

SUPERINTENDENT
SOUTHHMPTN CO SD
PO BOX 26
COURTLAND VA 23837

SUPERINTENDENT
FAIRFAX CO SCHOOLS
10700 PAGE AVE
FAIRFAX VA 22030

SUPERINTENDENT
FLOYD CO SCHOOLS
RR 1 BOX 4-A
FLOYD VA 24091

SUPERINTENDENT
GOOCHLAND CO SCHOOLS
PO BOX 169
GOOCHLAND VA 23063

SUPERINTENDENT
HENRICO CO SCHOOLS
PO BOX 40
HIGHLND SPR VA 23075

SUPERINTENDENT
KING & QUEEN CO SD
PO BOX 97
KG & QN CRTHSE 23085

SUPERINTENDENT
LOUDOUN CO SCHOOLS
20 UNION ST NW
LEESBURG VA 22075

SUPERINTENDENT
MADISON CO SCHOOLS
PO BOX 647
MADISON VA 22727

SUPERINTENDENT
ARLINGTON CO SCHOOLS
1426 N QUINCY ST
ARLINGTON VA 22207

SUPERINTENDENT
BLAND CO SCHOOLS
PO BOX 128
BLAND VA 24315

SUPERINTENDENT
CHARLES CITY CO SD
RR 2 BOX 2
CHARLES CITY VA 23030

SUPERINTENDENT
CHESTERFLD CO SCHOOLS
PO BOX 10
CHESTERFLD VA 23832

SUPERINTENDENT
COVINGTON CSD
340 E WALNUT ST
COVINGTON VA 24426

SUPERINTENDENT
FALLS CHURCH CSD
210 E BROAD ST
FALLS CHRCH VA 22046

SUPERINTENDENT
FRANKLIN CSD
800 W 2ND AVE
FRANKLIN VA 23851

SUPERINTENDENT
HAMPTON CSD
1819 NICKERSON BLVD
HAMPTON VA 23663

SUPERINTENDENT
GRAYSON CO SCHOOLS
PO BOX 219
INDEPENDENCE VA 24348

SUPERINTENDENT
KING GEORGE CO SD
RR 1 BOX 513
KING GEORGE VA 22485

SUPERINTENDENT
LEXINGTON CSD
300A WHITE ST
LEXINGTON VA 24450

SUPERINTENDENT
PRINCE WILLIAM CO SD
PO BOX 389
MANASSAS VA 22110

SUPERINTENDENT
MANASSAS PARK CSD
140-A KENT DR
MANASSAS PARK VA 22111

SUPERINTENDENT
WESTMORELAND CO SD
PO BOX 406
MONTROSS VA 22520

SUPERINTENDENT
NEWPORT NEWS CSD
PO BOX 6130
NEWPORT NEWS VA 23606

SUPERINTENDENT
NOTTOWAY CO SCHOOLS
NOTTOWAY VA
23955

SUPERINTENDENT
PORTSMOUTH CSD
PO BOX 988
PORTSMOUTH VA 23707

SUPERINTENDENT
RICHMOND CSD
301 N 9TH ST
RICHMOND VA 23219

SUPERINTENDENT
MIDDLESEX CO SCHOOLS
SALUDA VA
23149

SUPERINTENDENT
STAFFORD CO SCHOOLS
1729 JEFF. DAVIS HWY
STAFFORD VA 22554

SUPERINTENDENT
SUSSEX CO SCHOOLS
SUSSEX VA
23884

SUPERINTENDENT
VIRGINIA BEACH CSD
PO BOX 6038
VA BEACH VA 23456

SUPERINTENDENT
MATHEWS CO SCHOOLS
PO BOX 368
MATHEWS VA 23109

SUPERINTENDENT
CRAIG CO SCHOOLS
PO BOX 245
NEW CASTLE VA 24127

SUPERINTENDENT
NORFOLK CSD
PO BOX 1357
NORFOLK VA 23501

SUPERINTENDENT
FLUVANNA CO SCHOOLS
PO BOX 419
PALMYRA VA 22963

SUPERINTENDENT
POWHATAN CO SCHOOLS
2320 SKAGGS RD
POWHATAN VA 23139

SUPERINTENDENT
ROANOKE CSD
PO BOX 13145
ROANOKE VA 24031

SUPERINTENDENT
RAPPAHANNOCK CO SD
PO BOX 273
SPERRYVLL VA 22740

SUPERINTENDENT
GREENE CO SCHOOLS
PO BOX 98
STANRDSVLL VA 22973

SUPERINTENDENT
ESSEX CO SCHOOLS
TAPPAHANNOCK VA
22560

SUPERINTENDENT
BATH CO SCHOOLS
PO BOX 67
WARM SPR VA 24484

SUPERINTENDENT
HIGHLAND CO SCHOOLS
PO BOX 250
MONTEREY VA 24465

SUPERINTENDENT
NEW KENT CO SCHOOLS
PO BOX 110
NEW KENT VA 23124

SUPERINTENDENT
NORTON CSD
PO BOX 498
NORTON VA 24273

SUPERINTENDENT
POQUOSON SCHOOLS
PO BOX 2068
POQUOSON VA 23662

SUPERINTENDENT
RADFORD CSD
PO BOX 3698
RADFORD VA 24143

SUPERINTENDENT
ROANOKE CO SCHOOLS
526 S COLLEGE AVE
SALEM VA 24153

SUPERINTENDENT
SPOTSYLVANIA CO SD
PO BOX 338
SPOTSYLVANIA VA 22553

SUPERINTENDENT
SURRY CO SCHOOLS
PO BOX 317
SURRY VA 23883

SUPERINTENDENT
LUNENBURG CO SCHOOLS
PO BOX X
VICTORIA VA 23974

SUPERINTENDENT
RICHMOND CO SCHOOLS
PO BOX 735
WARSAW VA 22572

VITA

BRENDA JANE MARSHALL G'FELLERS

Personal Data:	Date of Birth: October 21, 1949 Place of Birth: Jonesborough, Tennessee Marital Status: Married
Education:	Public Schools, Illinois, Indiana, Kentucky, Tennessee East Tennessee State University, Johnson City, Tennessee; General Science Education, B. S., 1973 East Tennessee State University, Johnson City, Tennessee; School Library Media Service, M. A., 1979 Georgetown University, Washington, D. C., graduate study, 1984 East Tennessee State University, Johnson City, Tennessee, Educational Leadership and Policy Analysis, ED. D., 1992
Honors and Awards:	Outstanding Student, Science Education, East Tennessee State University Teacher of the Year, Johnson City Schools Fellow, ODYSSEY Institute, Georgetown University, Washington, D. C. Who's Who in American Education
Certification:	Career Level III Administrator/Librarian/Teacher; Administration/Supervision, K-8; Elementary Classroom, 1-8; General Science, 7-12; School Librarian, K-12
Professional Experience:	School Library Media Specialist, Johnson City, TN Public Schools, 1973-1988 Doctoral Fellow, East Tennessee State University, Johnson City, TN, 1986 Adjunct and Summer School Faculty, East Tennessee State University, Department of Curriculum and Instruction, 1987-1989 Classroom Teacher and Social Studies Department Chair, Liberty Bell Middle School, Johnson City, TN, 1988-1989 Assistant Principal, Liberty Bell Middle School, Johnson City, TN, 1989-1992

Publications:

"Little Red School House Day," Tennessee Teacher, March, 1977

A Survey and Evaluation of the Book-Form Poetry Collections of the Johnson City, Tennessee, Elementary School Libraries, Master's thesis, East Tennessee State University, 1979

Curriculum guides in Library/Reference Skills, Challenge Gifted and Talented Education, Interpretive Reading, grades 2 & 3, Humanities education, grade 5, Johnson City, TN, Public Schools

Personnel Handbook and Directory, Washington Co., TN, Schools, 1986

"Why Do We Live Here? Establishing a National Connection," TAMS Journal, Winter, 1990

Professional Memberships:

Association for Supervision and Curriculum Development

Kappa Delta Pi

National Education Association, Tennessee Education Association, Johnson City Education Association

Phi Delta Kappa

Phi Kappa Phi

Tennessee Association of Middle Schools

Tennessee Association for Supervision and Curriculum Development